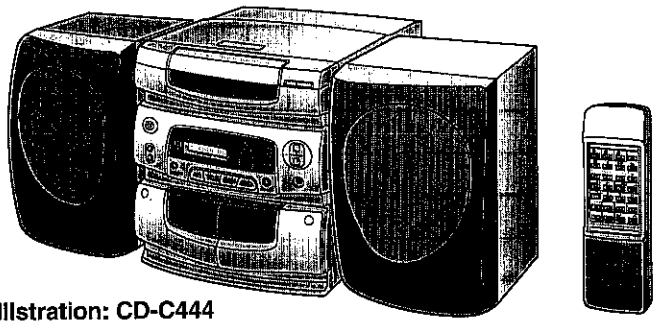
SHARP TECHNICAL MANUAL

No. S6581CDC444TM

TECHNICAL MANUAL OF CD CIRCUIT AUTOMATIC ADJUSTMENT



Illstration: CD-C444

CD-C444 SERIES

COMPACT disc DIGITAL AUDIO

- In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified should be used.

SHARP CORPORATION
SHARP ELECTRONICS CORPORATION
Service Headquarters: Sharp Plaza, Mahwah, New Jersey 07430-2135

CD SECTION

Since this CD system incorporates the following automatic adjustment function, when the pickup is replaced, it is not necessary to readjust it.

• Automatic adjustment item
1. Focus offset (Fig. 2-1)
2. Tracking offset (Fig. 2-2)
3. E/E balance (tracking error balance) (Fig. 2-3)
4. RF level AGC function (HF level: constant)
5. RF level automatic follow-up of the tracking gain

This automatic adjustment is performed each time a disc is changed. Therefore, each disc is played back using the optimal settings.

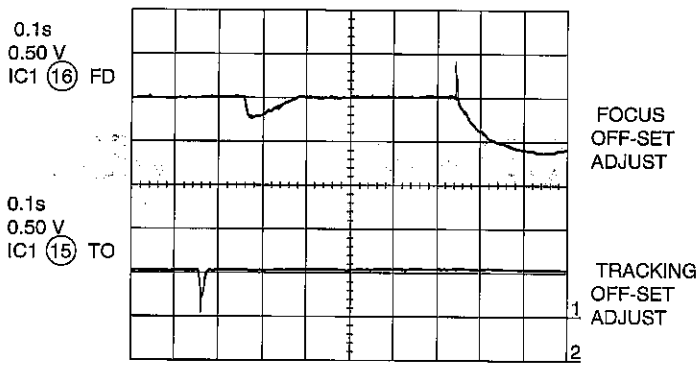


Figure 2-1

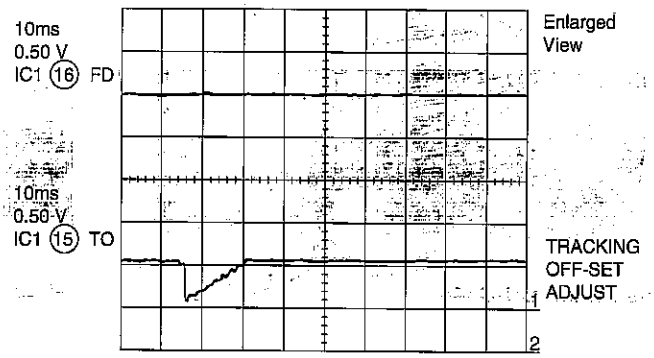


Figure 2-2

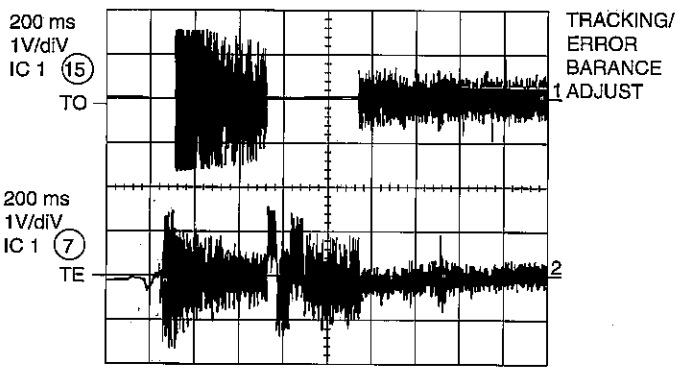


Figure 2-3

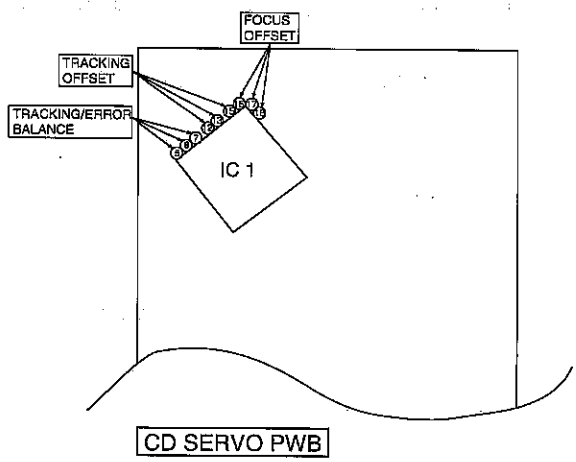


Figure 2-4 CHECKING POINTS

1. HF Level

The HF amplifier of CD circuit for this machine is provided with AGC (Automatic Gain Control). The HF level is kept constant irrespective of dispersion of pickup discs.
The observation of waveform through the oscilloscope at the test level of pin 41 (HF level) of IC1 (LA9231M) reveals that it is within 1.8 to 2.0Vp-p. Any deviation from this value indicates failure of the circuit.
If the laser diode output of pickup of former model lowered due to accumulation of dust, the HF level lowers soon.

With the CD circuit of this machine the HF level does not change when the output of laser diode lowers by about 3 dB.

2. Tracking Gain

The tracking gain is controlled, synchronizing with the HF level explained in item 1 above. The stable playback characteristics are ensured even when the disc whose HF level differs is used.

3. Tracking Offset

The offset setting circuit is provided in IC1 so that the voltage of output (IC1(LA9231M), pin 15 TO) of tracking servo circuit is set to 0V.
Voltage is applied from the lower limit (approx. 400 mV) of maximum adjustment position as shown in Figure 2-1, with 2 ms 60 mV step.
When voltage of IC 1 pin 15 (TO) exceeds 0V, it stops. Thereby the adjustment is completed.
If voltage of IC 1 pin 15 (TO) deviates by more than 100 mV, adjustment is judged to be abnormal.

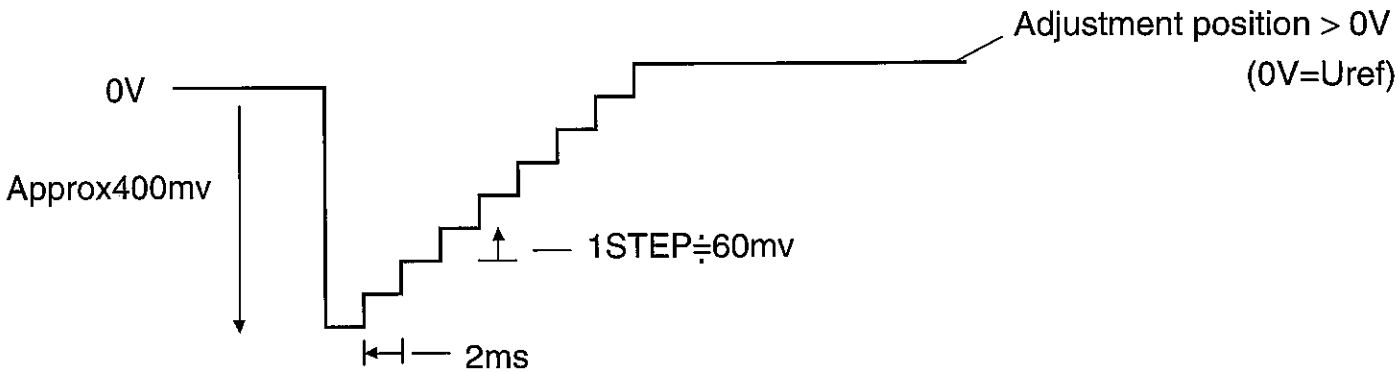


Figure3-1

4. Focus Offset

An adjustment is performed so that voltage of output IC 1 ((LA9231M) pin 16 FD) of focus servo circuit is set to 0V.
The same method as stated for tracking offset, item 3 above, is applied. 1 step is 30 ms, 40 mV.
If voltage of IC 1 pin 16 (FD) deviates also by more than 100 mv, the adjustment is judged to be abnormal.

5. Tracking Error Balance (E/F balance)

An adjustment is made with VCA so that the symmetrical waveform is obtained on the IC 1 pin 7 (TE(tracking error)) in disc playback mode.

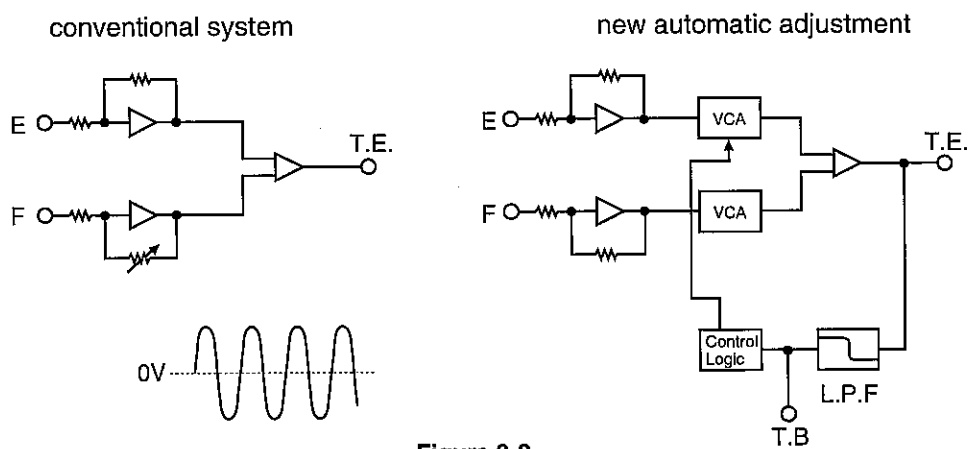


Figure 3-2

Note:
With the former models, VR of input amplifier was adjusted by monitoring the TE waveform so as to get symmetrical waveform. With this model, an adjustment is made by controlling the gain of E/F amplifier so that the DC voltage obtained from the waveform of TE is set to 0V.

6. Adjustment Time

The adjustment of HF level and tracking gain is always executed during disc playback since the AGC is provided.
An adjustment of tracking offset, focus offset, and tracking Error balance is performed whenever the power supply is turned on and whenever disc is changed.
Figure 4-2 shows the waveforms which represent the adjustment to be performed when disc is changed.

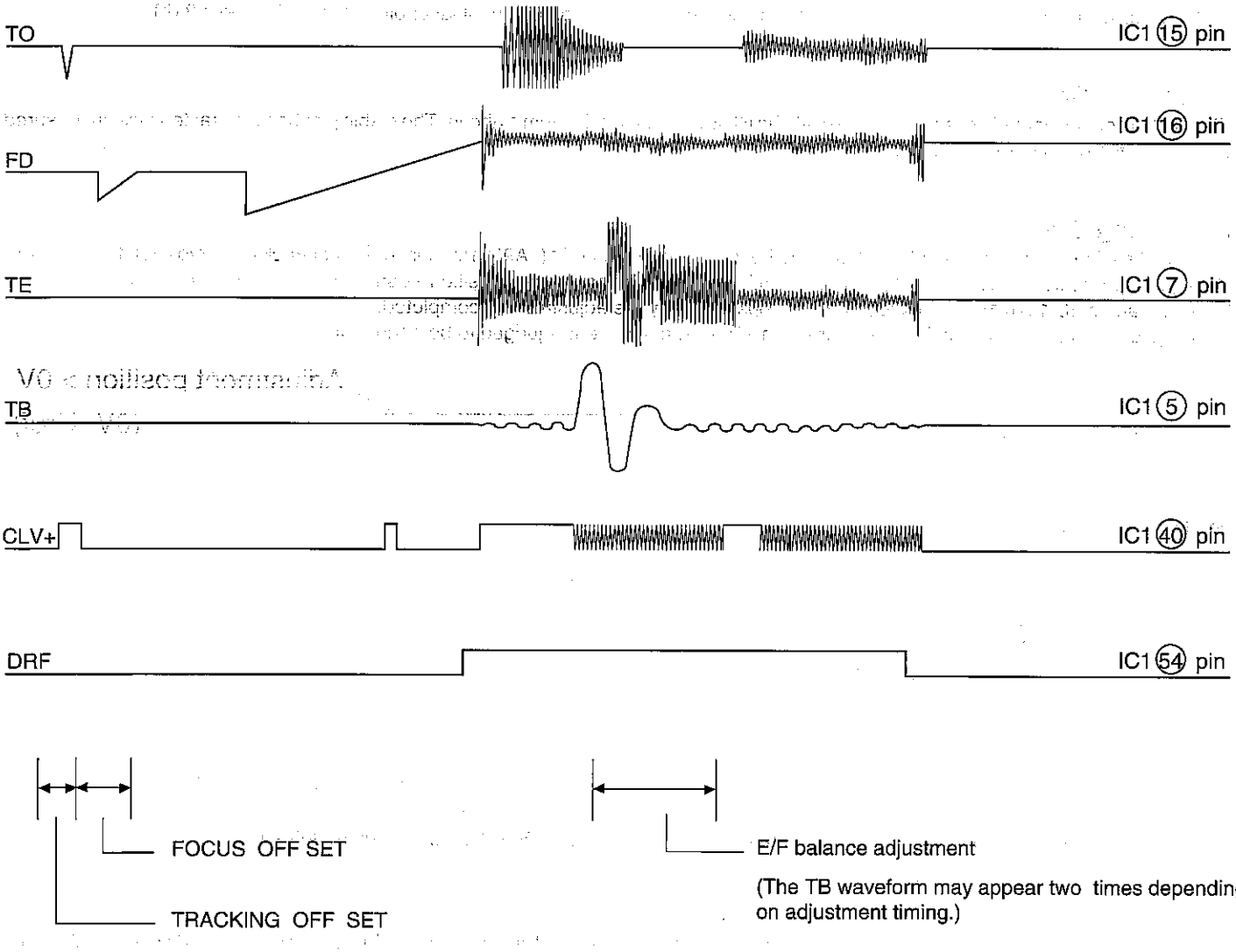


Figure 4

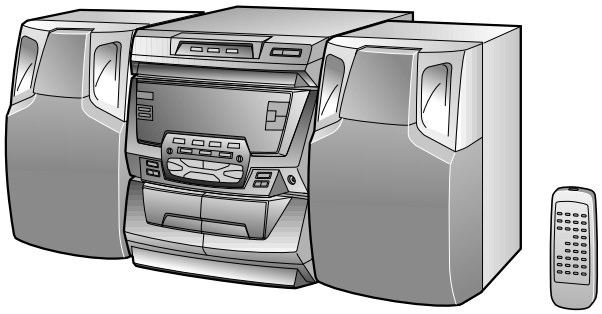
A9509-11636NS•HA•M

Writer and Editor: Quality & Reliability Control Center of Communication & Audio Systems Group, Sharp Corp.

Printed in Japan
SC•SG•SK•SL•EX•SZ

SHARP SERVICE MANUAL

No. S7749CDC440W/



CD-C440W
CP-C440W

COMPACT disc DIGITAL AUDIO (●) SOUND RETRIEVAL SYSTEM

- SRS technology Licensed from SRS Labe. SRS technology holds the follwing patents: U.S. Patent No. 4,748,669, U.S. Patent No. 4,841,572 and U.S. Patent No. 4,866,774.
- **SRS** the SRS Logo (●) and the **SOUND RETRIEVAL SYSTEM** are registered trademarks of SRS Labs, Inc.

CD-C440W AND CP-C440W constitute CD-C440W.

- In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified be used.

CONTENTS

Page

SAFETY PRECAUTION FOR SERVICE MANUAL 2
VOLTAGE SELECTION 2
AC POWER SUPPLY CORD AND AC PLUG ADAPTOR 2
SPECIFICATIONS 3
NAMES OF PARTS 4
OPERATION MANUAL 6
DISASSEMBLY 7
REMOVING AND REINSTALLING THE MAIN PARTS 9
ADJUSTMENT 10
NOTES ON SCHEMATIC DIAGRAM 12
BLOCK DIAGRAM 13
SCHEMATIC DIAGRAM / WIRING SIDE OF P.W.BOARD 16
WAVEFORMS OF CD CIRCUIT 37
TROUBLESHOOTING (CD SECTION) 38
FUNCTION TABLE OF IC 42
FL DISPLAY 51
REPLACEMENT PARTS LIST/EXPLODED VIEW

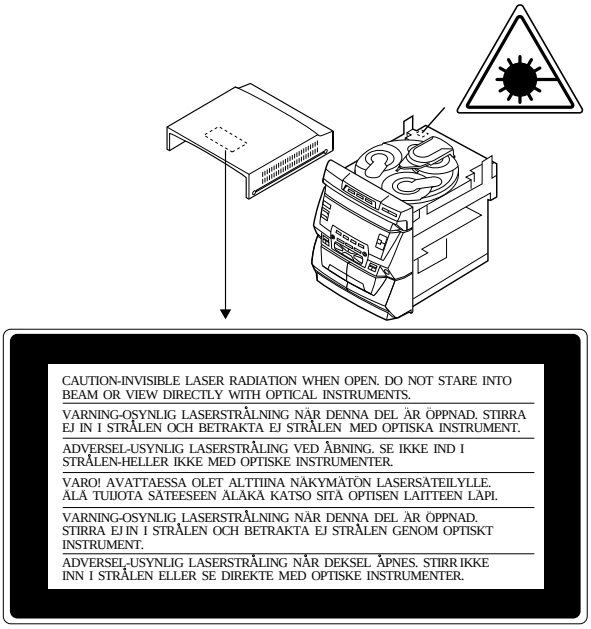
SHARP CORPORATION

SAFETY PRECAUTION FOR SERVICE MANUAL

Precaution to be taken when replacing and servicing the Laser Pickup.

The AEL (Accessible Emission Level) of Laser Power Output for this model is specified to be lower than Class I Requirements. However, the following precautions must be observed during servicing to protect your eyes against exposure to the Laser beam.

(1) When the cabinet has been removed, the power is turned on without a compact disc, and the Pickup is on a position outer than the lead-in position, the Laser will light for several seconds to detect a disc. Do not look into the Pickup Lens.
(2) The Laser Power Output of the Pickup inside the unit and replacement service parts have already been adjusted prior to shipping.
(3) No adjustment to the Laser Power should be attempted when replacing or servicing the Pickup.
(4) Under no circumstances look directly into the Pickup Lens at any time.
(5) CAUTION - Use of controls or adjustments, or performance of procedures other than those specified herein may result in hazardous radiation exposure.


CAUTION-INVISIBLE LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS.
VARNING-OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. STIRRA EJ IN I STRÅLEN OCH BETRAKTA EJ STRÅLEN MED OPTISKA INSTRUMENT.
ADVERSEL-USYNLIG LASERSTRÅLING VED ÅBNING. SE IKKE IND I STRÅLEN-HELLER IKKE MED OPTISKE INSTRUMENTER.
VARO! AVATTAESSA OLET ALTTIINA NÄKYMÄTÖN LASERSÄTEILYLLE. ÄLÄ TUIJOTA SÄTEESEEN ÄLÄKÄ KATSO SITÄ OPTISEN LAITTEEN LÄPI.
VARNING-OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. STIRRA EJ IN I STRÅLEN OCH BETRAKTA EJ STRÅLEN GENOM OPTISKT INSTRUMENT.
ADVERSEL-USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES. STIRR IKKE INN I STRÅLEN ELLER SE DIREKTE MED OPTISKE INSTRUMENTER.

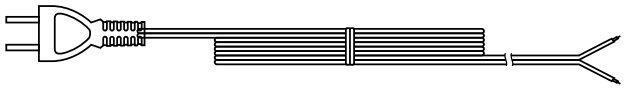
Laser Diode Properties
Material: GaAIAs
Wavelength: 780 nm
Emission Duration: continuous
Laser Output: max. 0.6 mW

VOLTAGE SELECTION

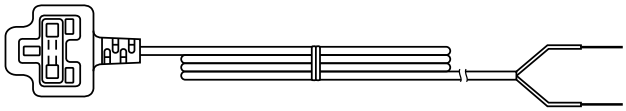
The voltage selector is located on the AC voltage selector box. If adjustment is necessary, use a screwdriver in order to turn the selector in either direction until the correct voltage figure is displayed in the window next to the adjisument screw.

QACCA0001AW00

92LCōRDT1699A



QACCB0003AW00



92LPLUG027

92LPLUG155A

QACCE0008AW00

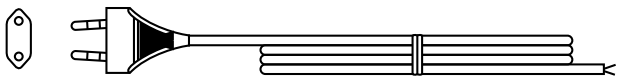


Figure 2 AC POWER SUPPLY CORD AND AC PLUG ADAPTOR

FOR A COMPLETE DESCRIPTION OF THE OPERATION OF THIS UNIT, PLEASE REFER TO THE OPERATION MANUAL.

SPECIFICATIONS

CD-C440W

● General

Power source: AC 110/127/220/230-240 V, 50/60 Hz
Power consumption: 200 W
Dimensions: Width; 270 mm (10-5/8")
Height; 300 mm (11-13/16")
Depth; 368 mm (14-1/2")
Weight: 6.9 kg (15.2 lbs.)

● Amplifier section

Output power: PMPO; 800 W (total)
MPO; 192 W (96 W + 96 W) (10% T.H.D)
RMS; 100 W (50 W + 50 W) (10% T.H.D)
Input terminals: Video/Auxiliary (audio signal) x 2;
500 mV/47 kohms
Output terminals: Speakers; 6 ohms
Headphones; 16-50 ohms
(recommended; 32 ohms)

● Compact disc player section

Type: 3-disc multi-play compact disc player
Signal readout: Non-contact, 3-beam semi-conductor laser pickup
D/A Converter: 1-bit D/A converter
Frequency response: 20 - 20,000 Hz
Dynamic range: 90 dB (1 kHz)

● Tuner section

Frequency range: FM; 88 - 108 MHz
MW; 531 - 1,602 kHz

● Cassette deck section

Type: Compact cassette tape
Frequency response: 50 - 14,000 Hz (Normal tape)
Motor: DC motor with electronic governor x 1
Signal/noise ratio: 55 dB (TAPE 1, playback)
50 dB (TAPE 2, recording/playback)
Bias and erasure system: AC
Tape speed: 4.76 cm/sec. (1-7/8 ips)
Wow and flutter: 0.15 % (WRMS)
Heads: TAPE-1: Playback x 1
TAPE-2: Record/playback x 1
Erase x 1

CP-C440W

● Speaker section

Type: 2-way 160 mm (6-1/2") woofer and 50 mm (2") tweeter type
Maximum input power: 100 W
Impedance: 6 ohms
Dimensions: Width; 220 mm (8-11/16")
Height; 300 mm (11-13/16")
Depth; 247 mm (9-3/4")
Weight: 3.4 kg (7.5 lbs.)/each

Specifications for this model are subject to change without prior notice.

NAMES OF PARTS

CD-C440W

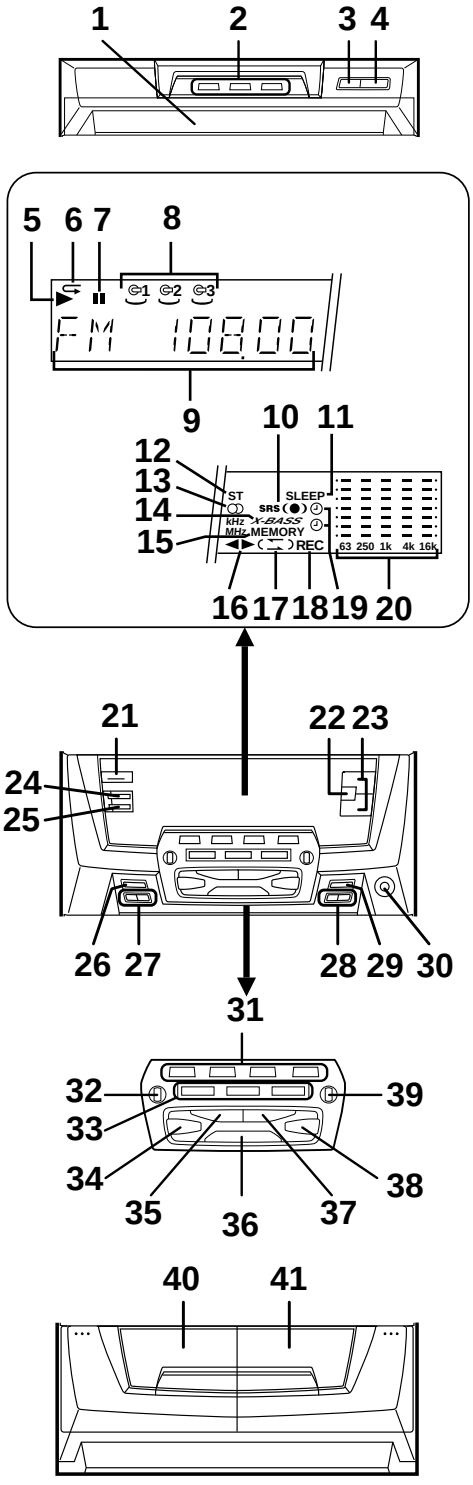
■ **Front Panel**

1. **Disc Tray**
2. **Disc Number Selector Buttons**
3. **Disc Skip Button**
4. **Open/Close Button: ▲**

5. **CD Play Indicator: ▶**
6. **CD Repeat Indicator:**
7. **CD Pause Indicator: ❚❚**
8. **Disc Number Indicators**
9. **Function/CD Track/Preset Channel/Volume/ Frequency/CD Counter/Time/Sleep Time Indicator**
10. **3D Surround Indicator**
11. **Sleep Indicator**
12. **FM Stereo Moke Indicator:ST**
13. **FM Stereo Indicator:**
14. **Extra Bass Indicator: X-BASS**
15. **Memory Indicator**
16. **Direction Indicators**
17. **Reverse Mode Indicator:**
18. **Record Indicator**
19. **Timer Indicator**
20. **Spectrum Analyzer/Volume Level Indicator**

21. **On/Stand-by Switch**
22. **Extra Bass Button: X-BASS**
23. **Volume Up/Down Buttons: ▽/△**
24. **Clock Button**
25. **Timer/Sleep Button**
26. **Memory/Set Button**
27. **Tuning and Time Up/Down Buttons: ∨/∧**
28. **Editing Speed Selector Buttons: NORMAL/HIGH**
29. **Reverse Mode Button**
30. **Headphone Socket**
31. **Function Selector Buttons**
32. **Record Pause Button: ●❚❚**
33. **3D Surround Mode Select Buttons: PASS/MONO/STEREO**
34. **Track Down/Review/Preset Down Button: ◀◀/I◀◀**
35. **(TAPE 2) Reverse Play Button: ◀**
36. **Stop Button: ■**
37. **(TAPE 1) Play Button/(TAPE 2) Forward Play Button/ (CD) Play/Repeat Button: ▶**
38. **Track Up/Cue/Preset Up Button: ▶▶/▶▶I**
39. **Equalizer Selector/Demo Mode Button**

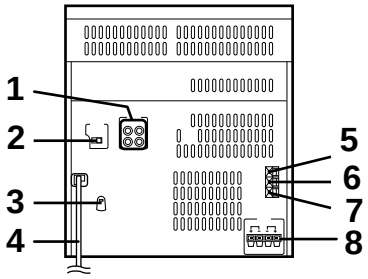
40. **(TAPE 1) Cassette Compartment**
41. **(TAPE 2) Cassette Compartment**



CD-C440W

■ **Rear Panel**

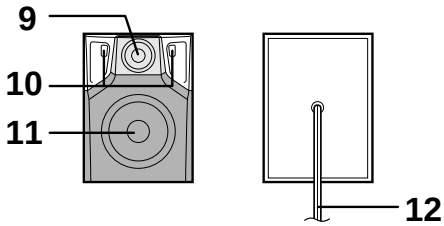
1. Video/Auxiliary (Audio Signal) Input Sockets
2. Span Selector Switch
3. AC Voltage Selector
4. AC Power Lead
5. FM 75 ohms Aerial Terminal
6. Aerial Earth Terminal
7. AM Aerial Terminal
8. Speaker Terminals



CP-C440W

■ **Speaker Section**

9. Tweeter
10. Bass Reflax Ducts
11. Woofer
12. Speaker Wire



CD-C440W

■ **Remote Control**

1. Remote Control Transmitter LED

● **CD Control section**

2. Disc Number Select Button
3. Track Down/Review Button: ◀◀/I◀◀
4. Track Up/Cue Button: ▶▶/▶▶I
5. Disc Skip Button
6. Play/Repeat Button: ▶⊂
7. Stop Button: ■
8. Memory Button
9. Clear Button
10. Random Button
11. Pause Button: ❚❚

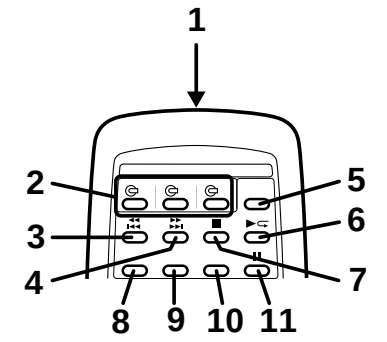
● **Tuner control section**

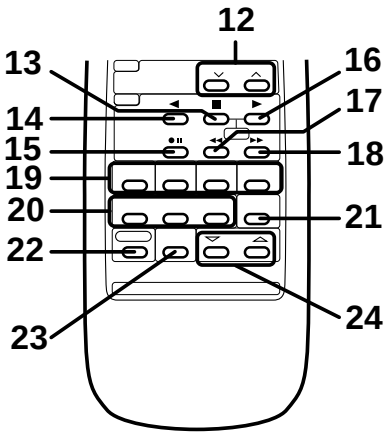
12. Preset Up/Down Buttons: ∨/∧

● **Tape control section**

13. (TAPE 1/2) Stop Button: ■
14. (TAPE 2) Reverse Play Button: ▶
15. (TAPE 2) Record Pause Button: ●❚❚
16. (TAPE 1) Play Button/
    (TAPE 2) Forward Play Button: ▶
17. (TAPE 2) Rewind Button: ◀◀
18. (TAPE 2) Fast Forward Button: ▶▶

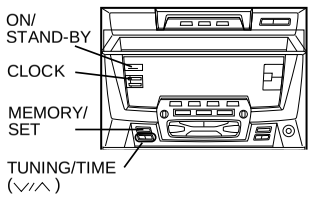
19. Function Selector Buttons
20. 3D Surround Mode Buttons: PASS/MONO/STEREO
21. Equalizer Mode Button
22. On/Stand-by Button
23. Extra Bass Button: X-BASS
24. Volume Up/Down Buttons: ▽/△

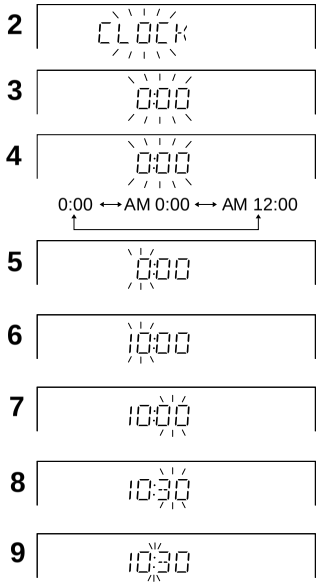




SETTING THE CLOCK

In this example, the clock is set for the 24-hour (0:00) system.





1 Press the ON/STAND-BY switch to enter the stand-by mode.

2 Press the CLOCK button.

3 Within 5 seconds, press the MEMORY/SET button.

4 Press the TUNING/TIME (∨ or ∧) button to select the time display mode.

"0:00" → The 24-hour display will appear. (0:00 - 23:59)
"AM 0:00" → The 12-hour display will appear. (AM 0:00 - PM 11:59)
"AM 12:00" → The 12-hour display will appear. (AM 12:00 - PM 11:59)

- Note that this can only be set when the unit is first installed or it has been reset (see below).

5 Press the MEMORY/SET button.

6 Press the TUNING/TIME (∨ or ∧) button to adjust the hour.

- Press the TUNING/TIME button once to advance the time by 1 hour. Press for more than 0.5 seconds to advance continuously.
- When the 12-hour display is selected, "AM" will change automatically to "PM".

7 Press the MEMORY/SET button.

8 Press the TUNING/TIME (∨ or ∧) button to adjust the minutes.

- Press the button for at least 0.5 seconds to change the time in 5-minute intervals.
- The hour setting will not advance even if minutes advance from "59" to "00".

9 Press the MEMORY/SET button.

- The clock starts operating from "0" seconds. (Seconds are not displayed.)

Note:

- In the event of a power failure or when the AC power lead is disconnected, the clock display will go out.
  When the AC power supply is restored, the clock display will flash on and off to indicate the time when the power failure occurred or when the AC power lead was disconnected.
  If this happens, follow the procedure below to change the clock time.

To change the time display mode:

1 Press the ON/STAND-BY switch to enter the stand-by mode.

2 Press the VOLUME ∨ button, the TUNING/TIME button and the ON/STAND-BY switch all at the same time. Hold them down for at least 1 second.

3 Perform steps 1 - 9 above.

Note:

- The operation explained above will erase all data stored in memory, such as clock and timer settings, tuner and CD presets.

To change the clock time:

When the ON/STAND-BY switch is set to STAND-BY.

- When the unit is in the demonstration mode, press the DEMO button to enter the clock mode.

① Press the MEMORY/SET button.
② Perform steps 6 - 9 above.

When the ON/STAND-BY switch is set to ON.

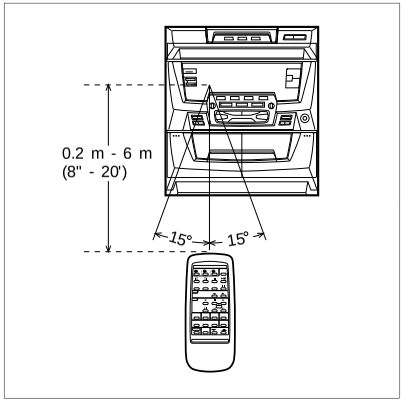
① Press the CLOCK button.
② Within 5 seconds, press the MEMORY/SET button.
③ Perform steps 6 - 9 above.

To see the time display: (When the power is ON)

Press the CLOCK button.

- The time display will appear for about 5 seconds.

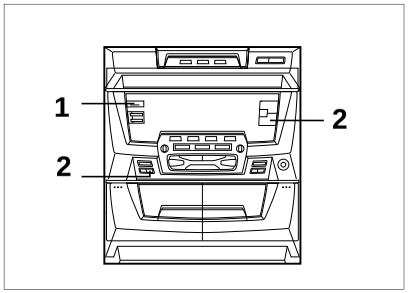
PREPARATION FOR USE



Notes concerning use:

- Replace the batteries if control distance decreases or operation becomes erratic.
- Periodically clean the transmitter LED on the remote control and the sensor on the main unit with a soft cloth.
- Exposing the sensor on the main unit to strong light may interfere with operation. Change the lighting or the direction of the unit.
- Keep the remote control away from moisture, excessive heat, shock, and vibrations.

RESETTING THE MICROCOMPUTER



Reset the microcomputer under the following conditions:

- To erase all of the stored memory contents (clock and timer settings, tuner and CD presets).
- If the display is not correct.
- If the operation is not correct.

Note:

- To erase the tuner preset memory, see "To erase all of the contents of preset memory" on page 16.

1 Press the ON/STAND-BY switch to enter the stand-by mode.

2 Press the VOLUME ∨ button, the TUNING/TIME ∧ button and the ON/STAND-BY switch all at the same time. Hold them down for at least 1 second.

DISASSEMBLY

Caution on Disassembly

Follow the below-mentioned notes when disassembling the unit and reassembling it, to keep it safe and ensure excellent performance:

1. Take cassette tape and compact disc out of the unit.
2. Be sure to remove the power supply plug from the wall outlet before starting to disassemble the unit.
3. Take off nylon bands or wire holders where they need be removed when disassembling the unit. After servicing the unit, be sure to rearrange the leads where they were before disassembling.
4. Take suffcient care on static electricity of integrated circuits and other circuits when servicing.

CD-C440W

STEP	REMOVAL	PROCEDURE	FIGURE
1	Top Cabinet	1. Screw ..... (A1) x4	7-1
2	Side Panel (Left/right)	1. Screw ..... (B1) x6	7-1
3	CD Player Unit/ CD Tray Cover	1. Turn on the power supply, open the disc tray, take out the CD cover, and close. (Note 1) 2. Hook ..... (C1) x3 3. Hook ..... (C2) x2 4. Screw ..... (C3) x1 5. Socket ..... (C4) x4	7-2
4	Tuner PWB	1. Screw ..... (D1) x4 2. Soket ..... (D2) x1	7-2
5	Back Board	1. Screw ..... (E1) x6 2. Screw ..... (E2) x1	7-2
6	Main PWB	1. Screw ..... (F1) x3 2. Holder ..... (F2) x2 3. Flat Wire ..... (F3) x4 4. Socket ..... (F4) x3	8-1
7	Headphones PWB	1. Screw ..... (G1) x1	8-1
8	Front Panel	1. Screw ..... (H1) x2	8-1
9	Display PWB/ Switch PWB	1. Screw ..... (J1) x3 2. Screw ..... (J2) x11	8-2
10	Tape Mechanism	1. Open the cassette holder. 2. Screw..... (K1) x6	8-2
11	Power Amp. PWB	1. Screw ..... (L1) x4	8-3
12	Turntable	1. Screw ..... (M1) x1 2. Cover ..... (M2) x1	8-4
13	Disc Tray	1. Screw ..... (N1) x2 2. Guide ..... (N2) x2	8-4
14	CD Changer Mechanism	1. Screw ..... (P1) x4	8-5
15	CD Mechanism	1. Screw ..... (Q1) x1	8-5

Note 1:

How to open the changer manually. (Fig. 7-3)

1. Insert the tip of fine screwdriver into the hole of CD player base, and press down the worm wheel **< A >** .
2. Then, turn fully the lock lever in the arrow direction through the hole on the loading chassis bottom in this state. After that, push forward the CD player base.

CP-C440W

STEP	REMOVAL	PROCEDURE	FIGURE
1	Speaker	1. Net Frame Ass'y ..... (A1) x1 2. Duct Front Panel .... (A2) x1 3. Screw ..... (A3) x4 4. Screw ..... (A4) x4	8-6 8-7

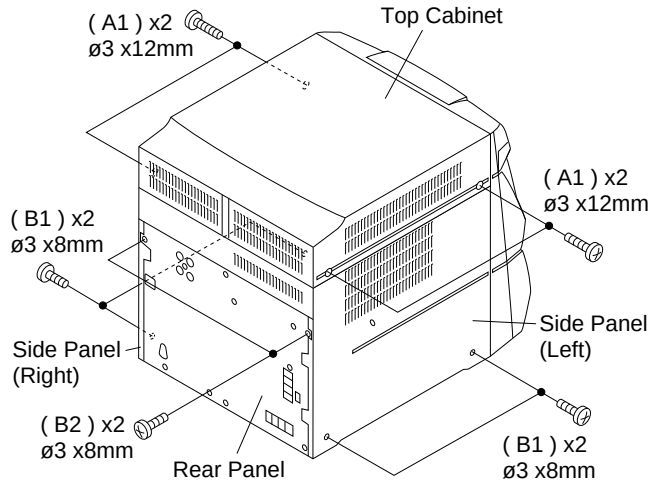


Figure 7-1

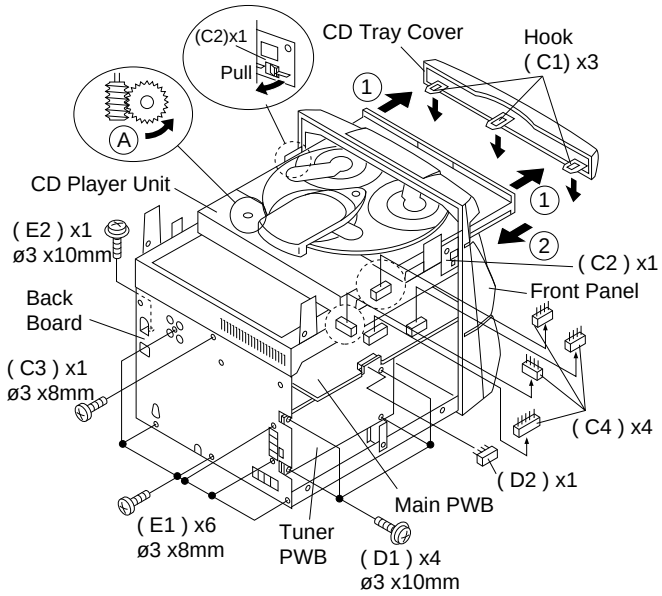


Figure 7-2

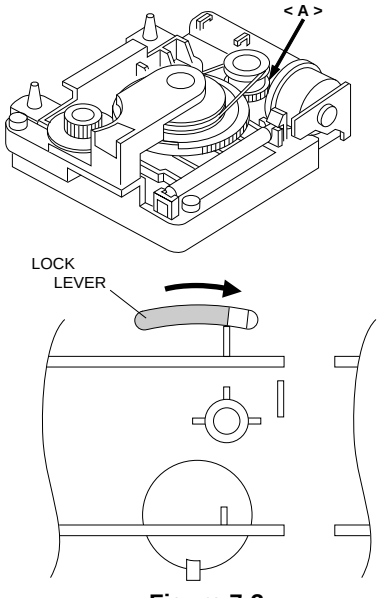


Figure 7-3

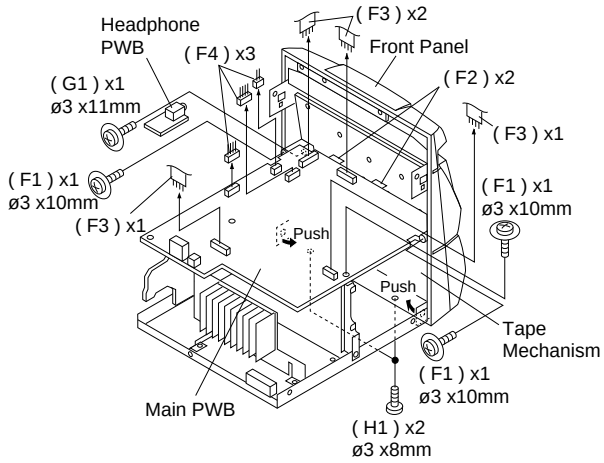


Figure 8-1

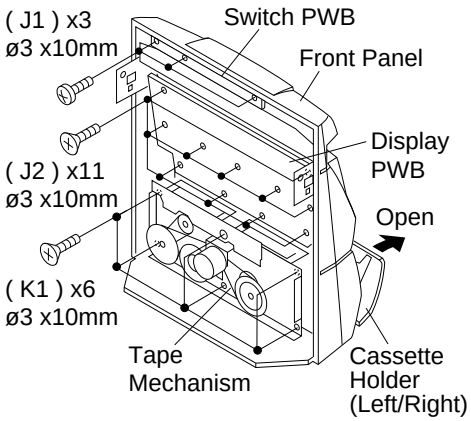


Figure 8-2

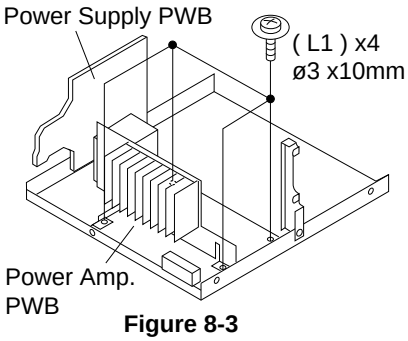


Figure 8-3

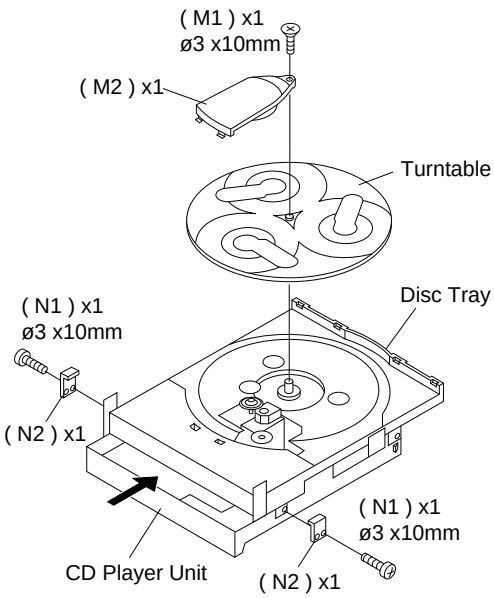
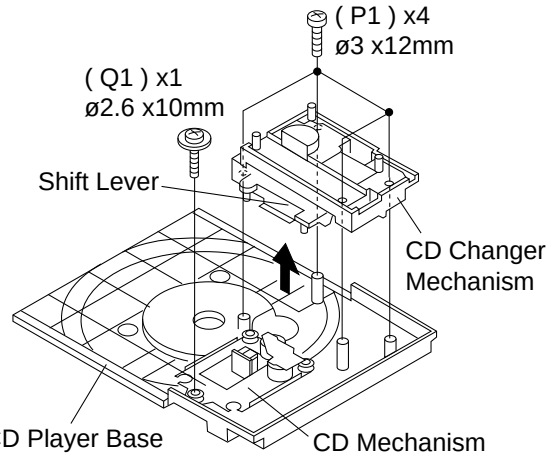


Figure 8-4



Care when installing the CD changer mechanism.
Install the CD changer mechanism on the CD player base after the shift lever has been set in the highest position.

Figure 8-5

CP-C440W

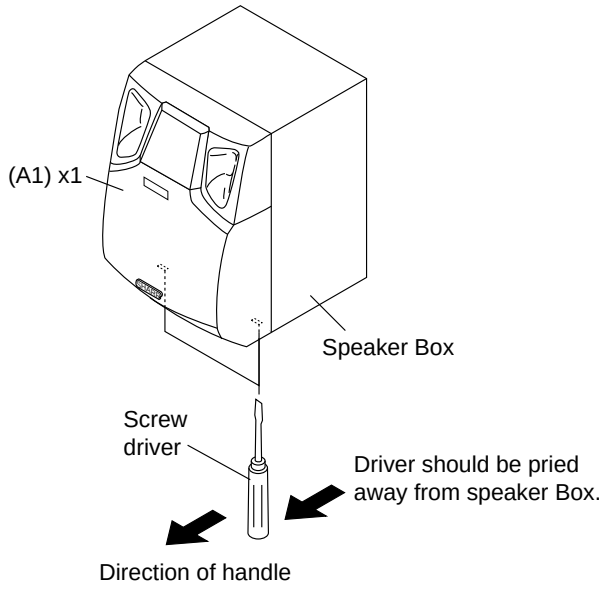


Figure 8-6

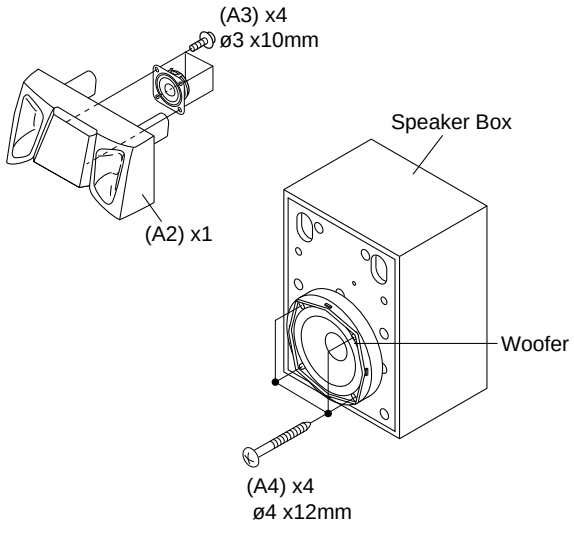


Figure 8-7

REMOVING AND REINSTALLING THE MAIN PARTS

CD MECHANISM SECTION

Perform steps 1, 2, 3, 14 and 15 of the disassembly method to remove the CD mechanism.

How to remove the turntable up/down motor (See Fig. 9-1)

1. Remove the screws (A1) x 2 pcs., to remove the turntable up/down motor.

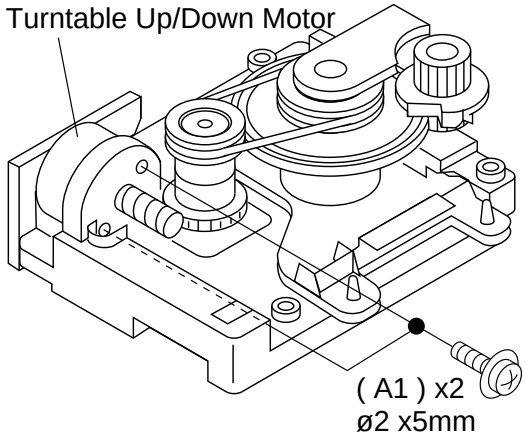


Figure 9-1

How to remove the pickup (See Fig. 9-2)

1. Remove the screws (B1) x 2 pcs., to remove the shaft (B2).
2. Remove the stop washer (B3) x 1 pc., to remove the gear (B4).
3. Remove the pickup.

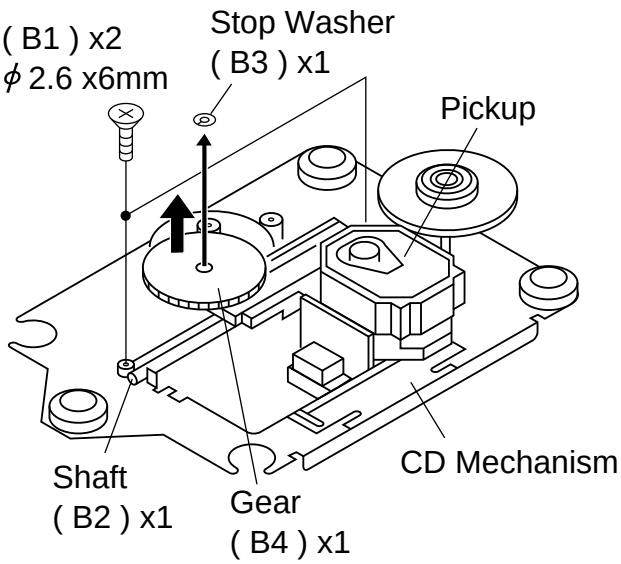


Figure 9-2

ADJUSTMENT

MECHANISM SECTION

• Driving Force Check

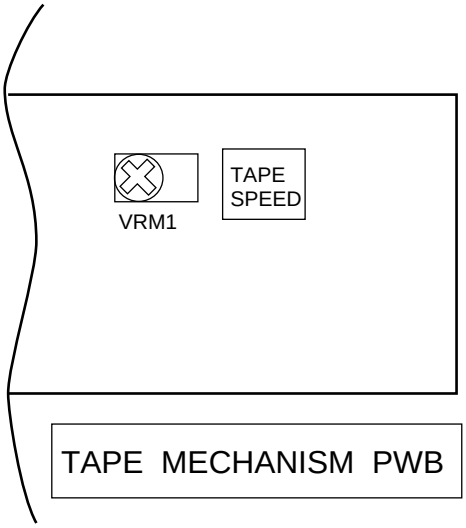
Torque Meter	Specified Value
Play: TW-2412	Tape 1: Over 80 g Tape 2: Over 80 g

• Torque Check

Torque Meter	Specified Value	
	Tape 1	Tape 2
Play: TW-2111	30 to 60 g. cm	30 to 100 g.cm
Fast forward: TW-2231	—	50 to 100 g.cm
Rewind: TW-2231	—	50 to 100 g.cm

• Tape Speed

	Test Tape	Adjusting Point	Specified Value	Instrument Connection
Normal speed	MTT-111	VRM1	3,000 ± 30 Hz	Speaker terminal



TUNER SECTION

fL: Low-range frequency
fH: High-renge frequency

• AM IF/RF

Signal generator: 400 Hz, 30%, AM modulated

Test Stage	Frequency	Frequency Display	Setting/ Adjusting Parts	Instrument Connection
IF	450 kHz	1,602 kHz	T351	*1
AM Band Coverage	—	531 kHz	(fL): T306 1.1 ± 0.1 V	*2
AM Tracking	990 kHz	990 kHz	(fL): T302	*1

*1. Input: Antenna, Output: TP302
*2. Input: Antenna, Output: TP301

• FM

Notes:

1: Description of the "FM IF Adjustment" is not carried on this Manual. It is because the IF coil in the FM front end section has been best adjusted in the factory so that its further adjustment is not needed at the field. When replacing the FM front end assembly, no adjustment is needed either.
2: The parts in the FM front end section are prepared in a complete unit, so you can't obtain each part individually

• FM Mute Level

Signal generator: 1 kHz, 40 kHz dev., FM modulated

Frequency	Frequency Display	Adjusting Parts	Instrument Connection
98.00 MHz (25 dBμV)	98.00 MHz	VR351*	Input: Antenna Output: Speaker Terminal

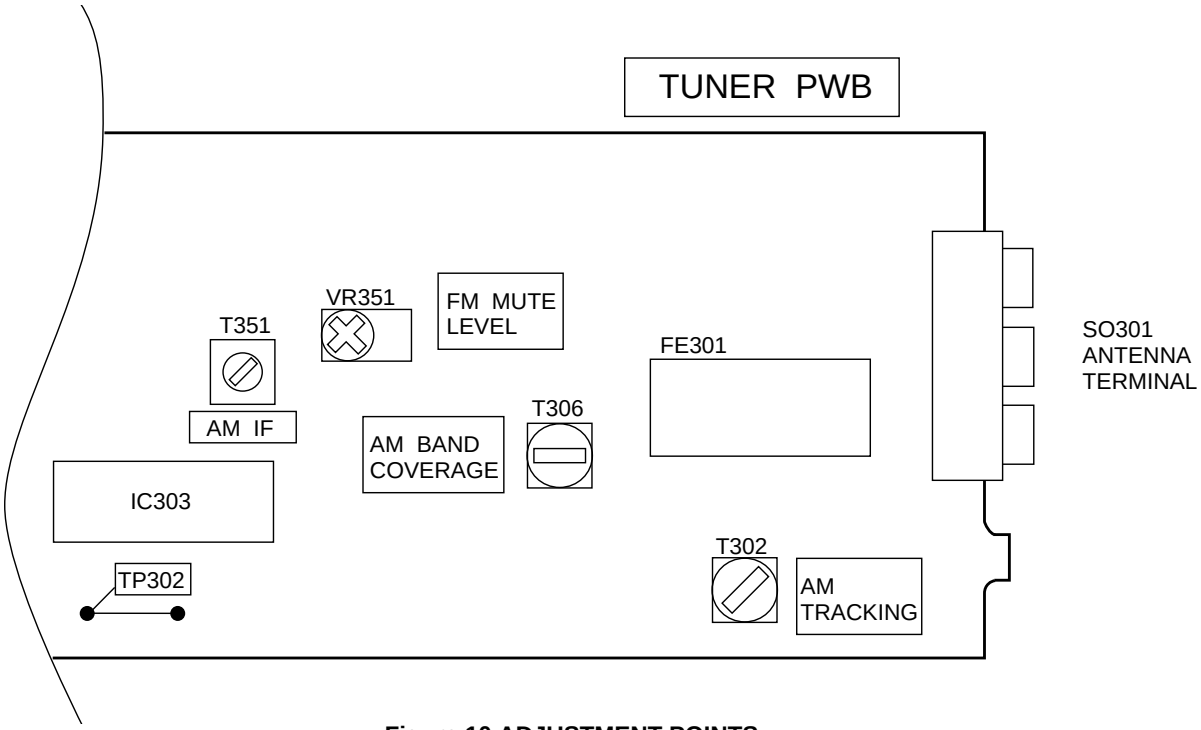


Figure 10 ADJUSTMENT POINTS

TEST MODE

• Setting the test mode

Any one of test mode can be set by pressing several keys as follows.

<REC. PAUSE> + <CD> + <POWER> TEST: CD operation test

• TEST mode

Function — CD test mode

Setting of TEST mode
↓
Indication of CD TST mode (Fig. 11-1)
↓
OPEN/CLOSE operation is manual operation.
↓
The pickup can be moved by using the (▶▶) or (◀◀) key.

IL is not performed.

<MEMORY> LASER ON — <MEMORY> Tracking on the spot. SERVO OFF PLAY — <MEMORY> Tracking on the spot. SERVO ON PLAY — <STOP> STOP

<PLAY> key input — TOC. IL is performed, and the ordinary PLAY is performed. — Press <STOP> key. — Stop

If the following key is pressed during PLAY, it is possible to specify directly any Track No.
<Disc Number 1> key: Track 4
<Disc Number 2> key: Track 9
<Disc Number 3> key: Track 15

Note:

Only in STOP state it is possible to slide the pickup with the (▶▶) or (◀◀) key.

VOL. --- Last memory
BAL. --- CENTER
R.GEQ. --- FLAT
X-BAS --- OFF

Canceling method - POWER OFF

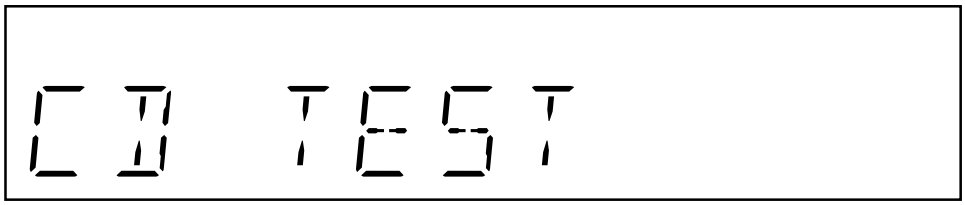


Figure 11-1

CD SECTION

Since this CD system incorporates the following automatic adjustment function, when the pickup is replaced, it is not necessary to readjust it.
Since this CD unit does not need adjustment, the combination of PWB and laser pickup unit is not restricted.

• Automatic adjustment item

1. Focus offset (Fig. 11-2)
2. Tracking offset (Fig. 11-3)
3. E/F balance (tracking error balance) (Fig. 11-4)
4. RF level AGC function (HF level: constant)
5. RF level automatic follow-up of the tracking gain

This automatic adjustment is performed each time a disc is changed. Therefore, each disc is played back using the optimal settings.

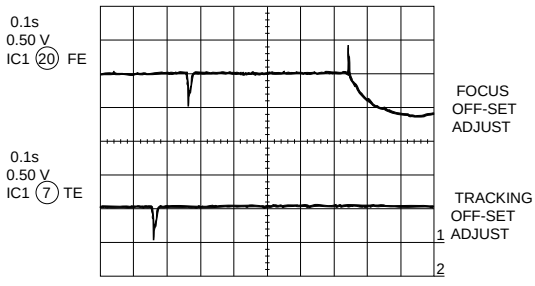


Figure 11-2

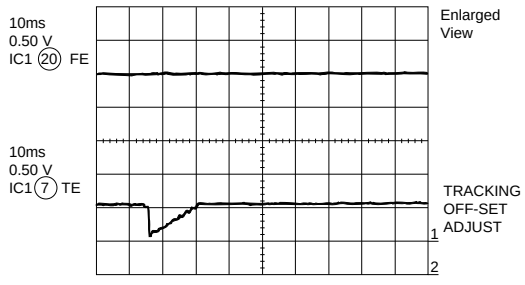


Figure 11-3

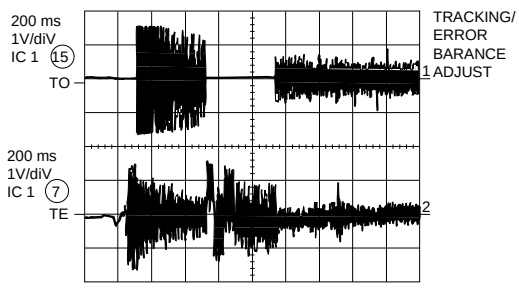


Figure 11-4

NOTES ON SCHEMATIC DIAGRAM

- Resistor:
  To differentiate the units of resistors, such symbol as K and M are used: the symbol K means 1000 ohm and the symbol M means 1000 kohm and the resistor without any symbol is ohm-type resistor. Besides, the one with “Fusible” is a fuse type.
- Capacitor:
  To indicate the unit of capacitor, a symbol P is used: this symbol P means micro-micro-farad and the unit of the capacitor without such a symbol is microfarad. As to electrolytic capacitor, the expression “capacitance/withstand voltage” is used.
  (CH), (TH), (RH), (UJ): Temperature compensation
  (ML): Mylar type
  (P.P.): Polypropylene type
- Schematic diagram and Wiring Side of P.W.Board for this model are subject to change for improvement without prior notice.
- The indicated voltage in each section is the one measured by Digital Multimeter between such a section and the chassis with no signal given.
  1. In the tuner section,
     ( ) indicates AM
     < > indicates FM stereo
  2. In the main section, a tape is being played back.
  3. In the deck section, a tape is being played back.
     ( ) indicates the record state.
  4. In the power section, a tape is being played back.
  5. In the CD section, the CD is stopped.
- Parts marked with “ ⚠ ” (⊏ ニ ニ ニ ⊐) are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

REF. NO	DESCRIPTION	POSITION
SW1	OPEN/CLOSE	ON—OFF
SW2	MWCHA UP	ON—OFF
SW3	DISC NUMBER	ON—OFF
SW4	PICKUP IN	ON—OFF
SW601	SPAN SELECTOR	50/9—100/10
SW701	ON/STAND-BY	ON—OFF
SW702	CLOCK	ON—OFF
SW703	TIME/SLEEP	ON—OFF
SW704	DISC 1	ON—OFF
SW705	DISC 2	ON—OFF
SW706	DISC 3	ON—OFF
SW707	DISC SKIP	ON—OFF
SW708	OPEN/CLOSE	ON—OFF
SW709	CD	ON—OFF
SW710	TUNER/BAND	ON—OFF
SW711	TAPE	ON—OFF
SW712	VIDEO	ON—OFF
SW717	CENTER MODE/PHANTOM	ON—OFF
SW719	CENTER MODE/NORMAL	ON—OFF
SW721	DOLBY PRO LOGIC/BYPASS	ON—OFF
SW723	REC/PAUSE	ON—OFF
SW724	TUNING UP/TIME	ON—OFF
SW725	VOLUME UP	ON—OFF

REF. NO	DESCRIPTION	POSITION
SW726	X-BASS	ON—OFF
SW728	STOP	ON—OFF
SW729	FWD	ON—OFF
SW730	FF	ON—OFF
SW731	MEMORY SET	ON—OFF
SW732	TUNING DOWN/TIME	ON—OFF
SW733	VOLUME DOWN	ON—OFF
SW734	EQUALIZER/DEMO	ON—OFF
SW735	3D SURROUND	ON—OFF
SW736	REVERSE MODE	ON—OFF
SW737	REV	ON—OFF
SW738	REW	ON—OFF
SW739	EDIT NORMAL	ON—OFF
SW740	EDIT HIGH	ON—OFF
SW801	VOLTAGE SELECTOR	110—127—220—230/240
SWM 3	REC FWD	ON—OFF
SWM 4	REC RVS	ON—OFF
SWM 5	F.A.S.	ON—OFF
SWM 6	CAM	ON—OFF

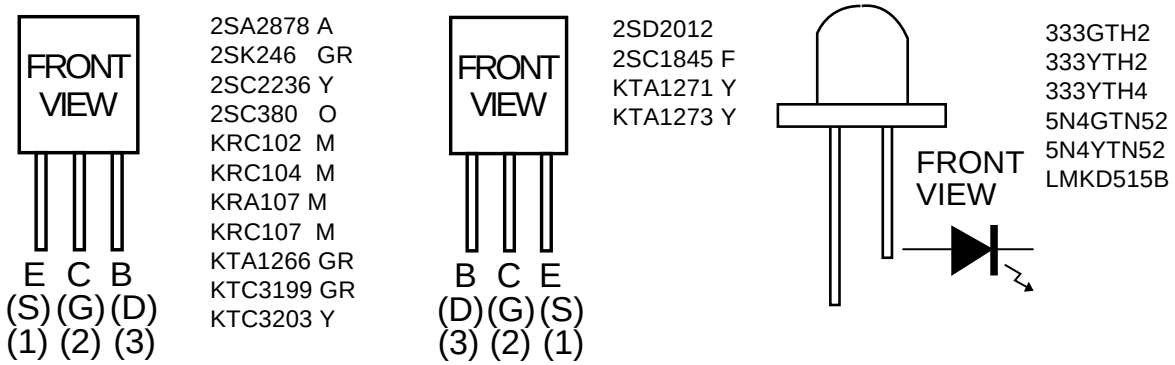


Figure 12 TYPES OF TRANSISTOR AND LED

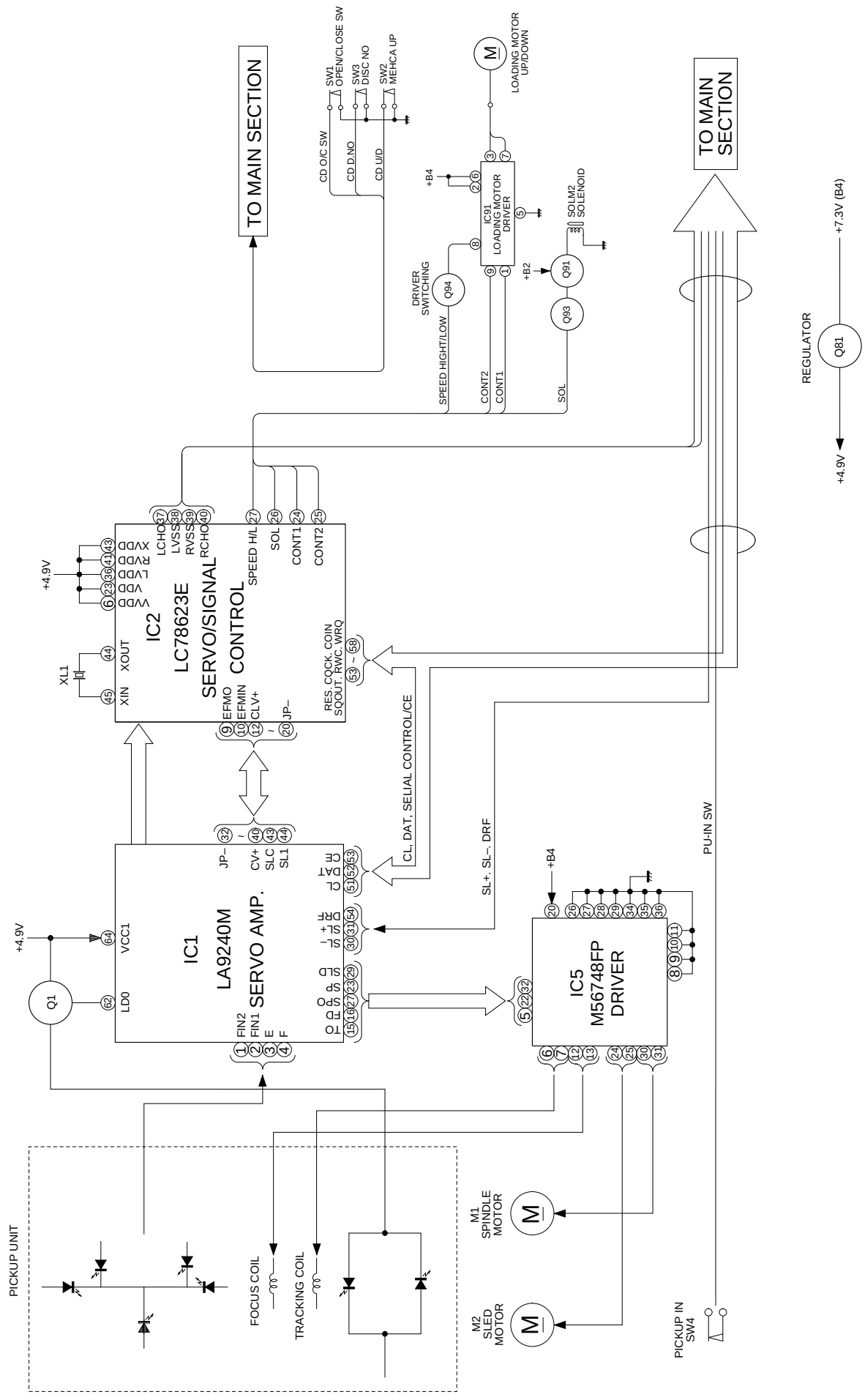


Figure 13 BLOCK DIAGRAM (1/3)

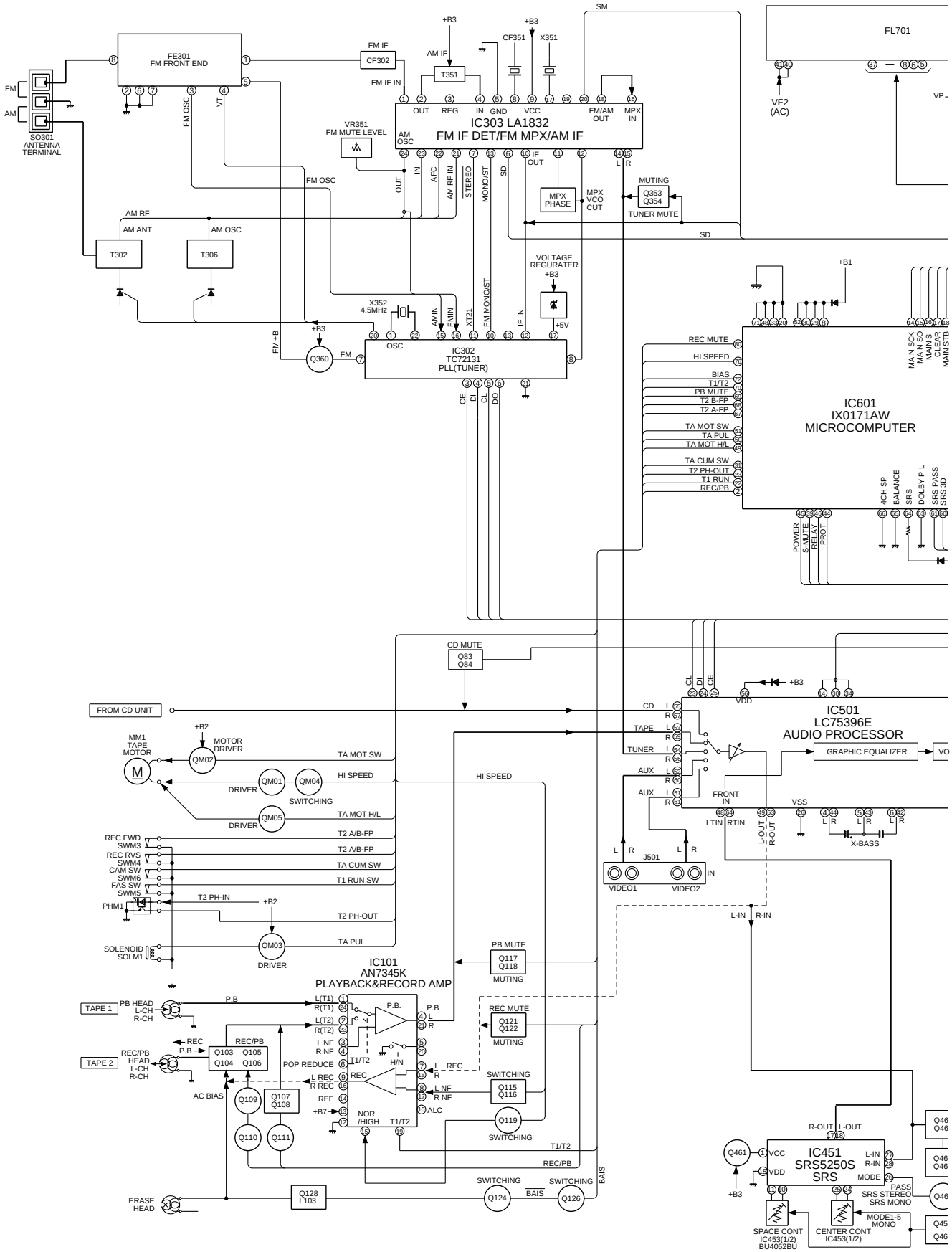


Figure 14 BLOCK DIAGRAM (2/3)

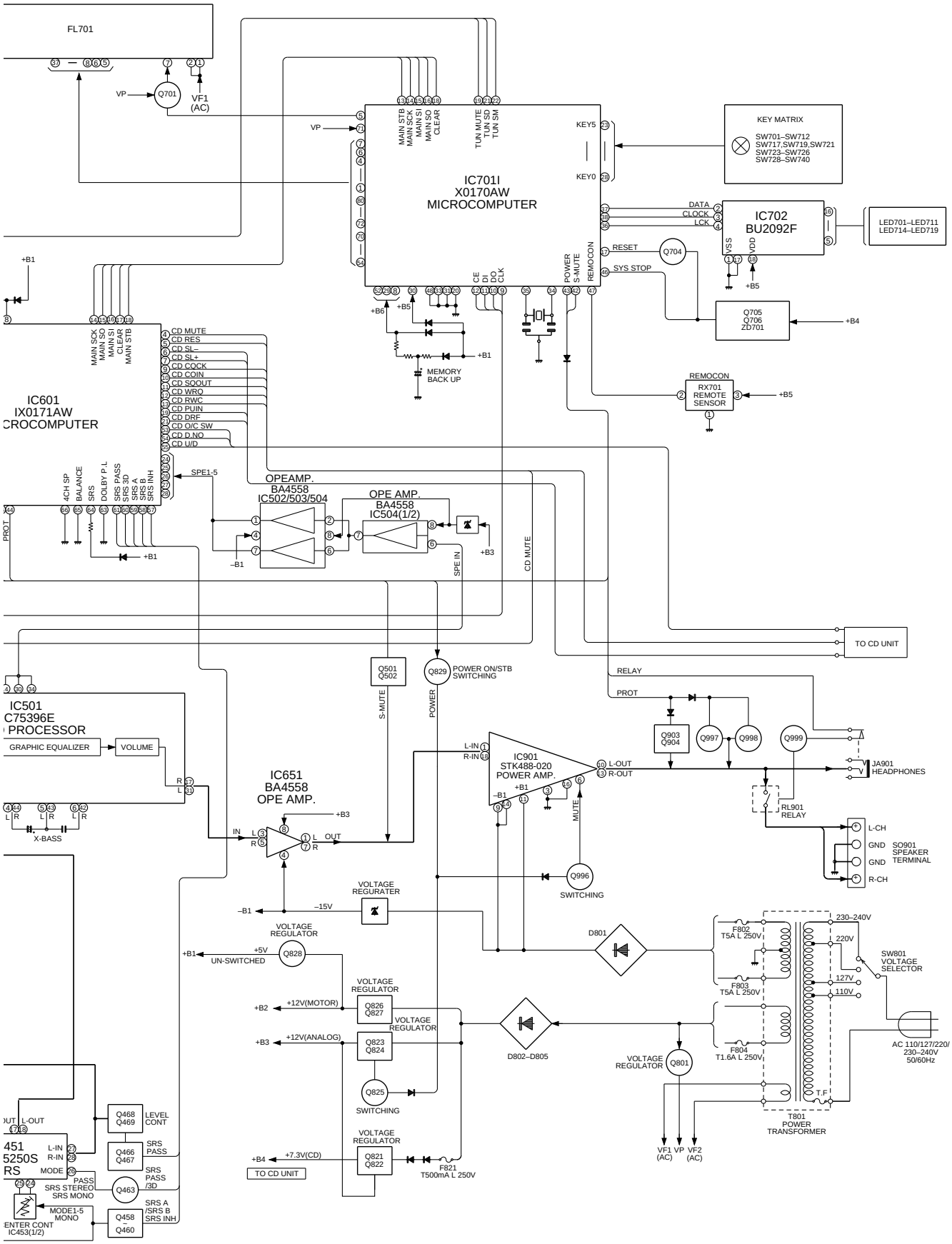
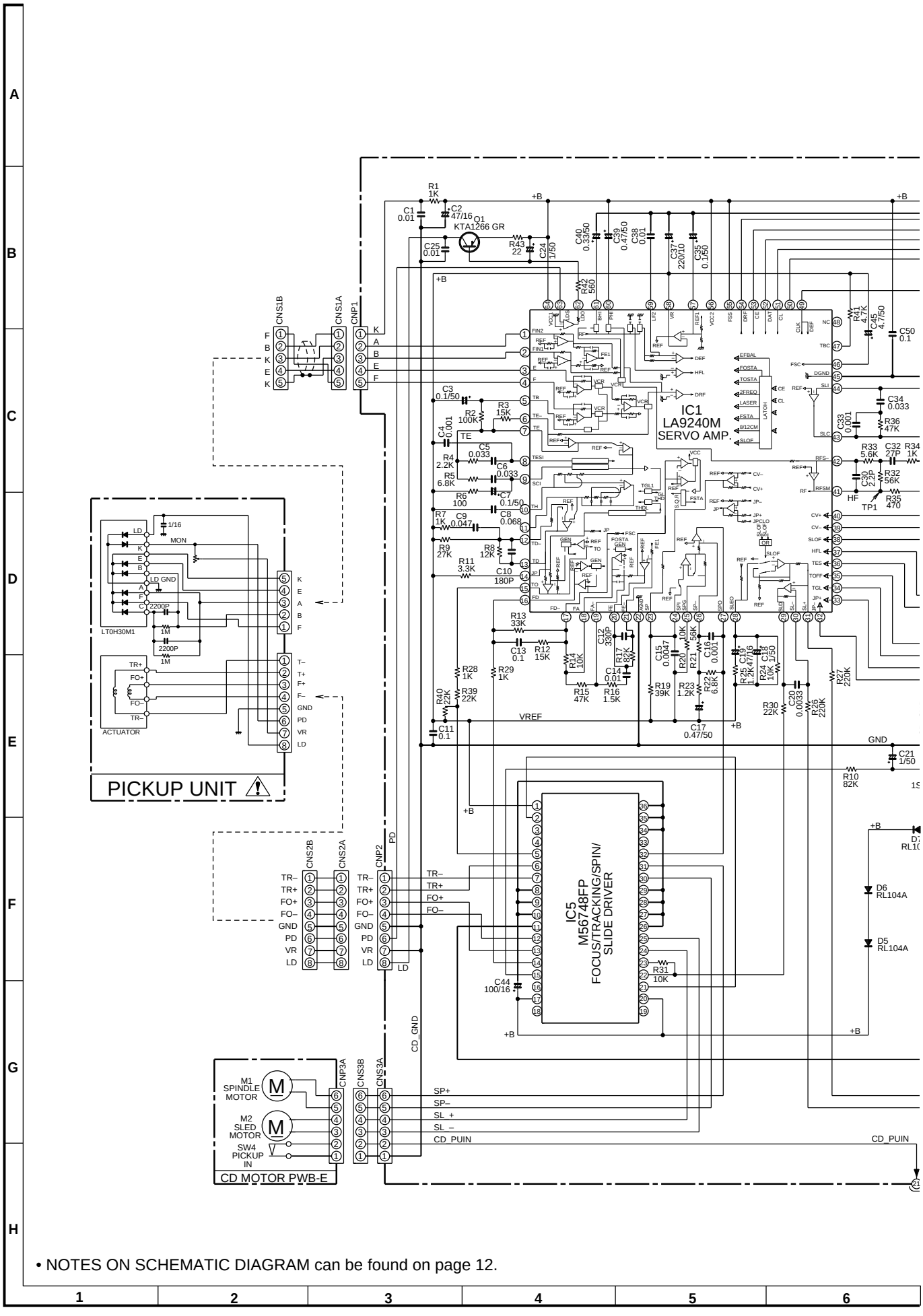
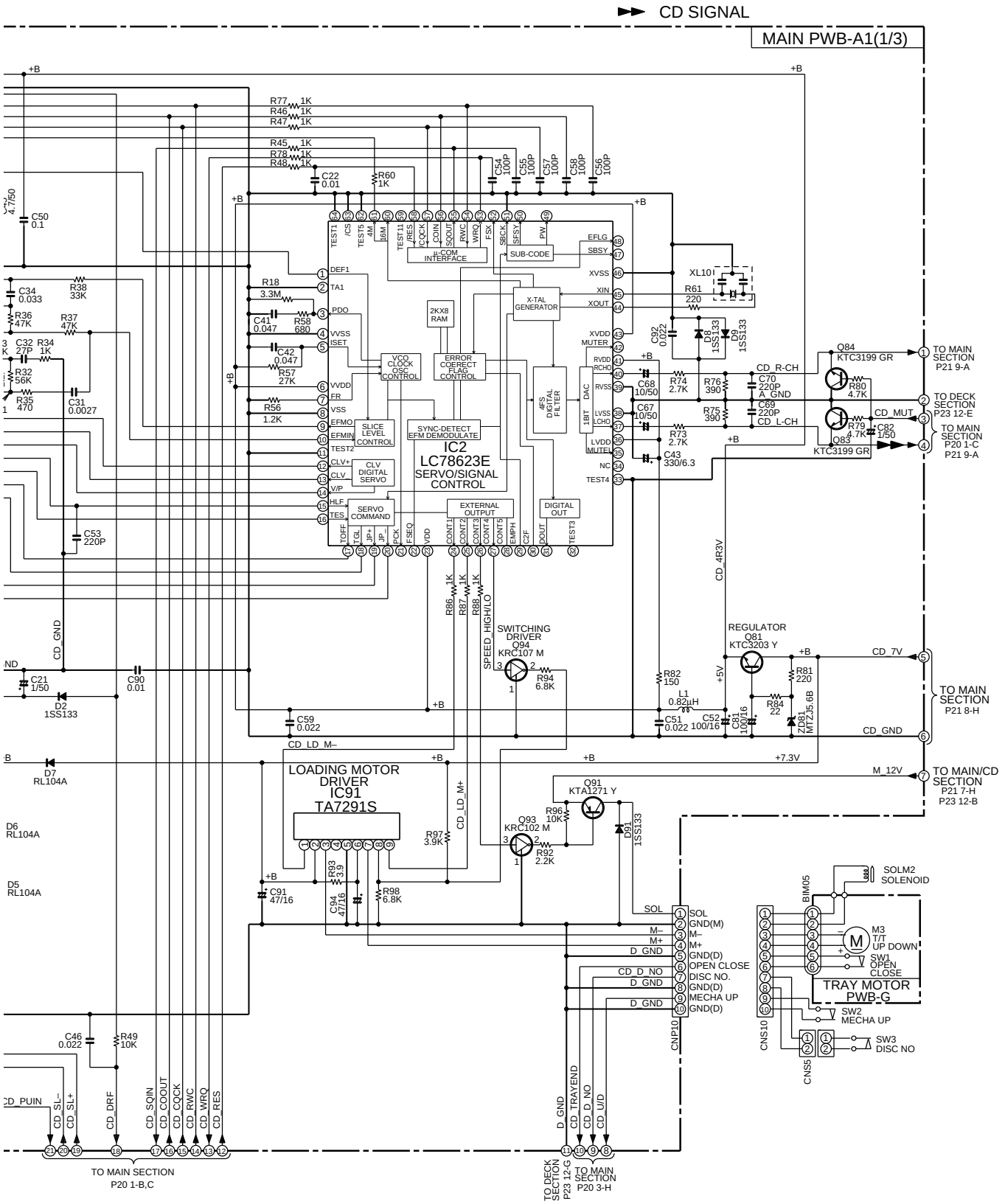


Figure 15 BLOCK DIAGRAM (3/3)



• NOTES ON SCHEMATIC DIAGRAM can be found on page 12.

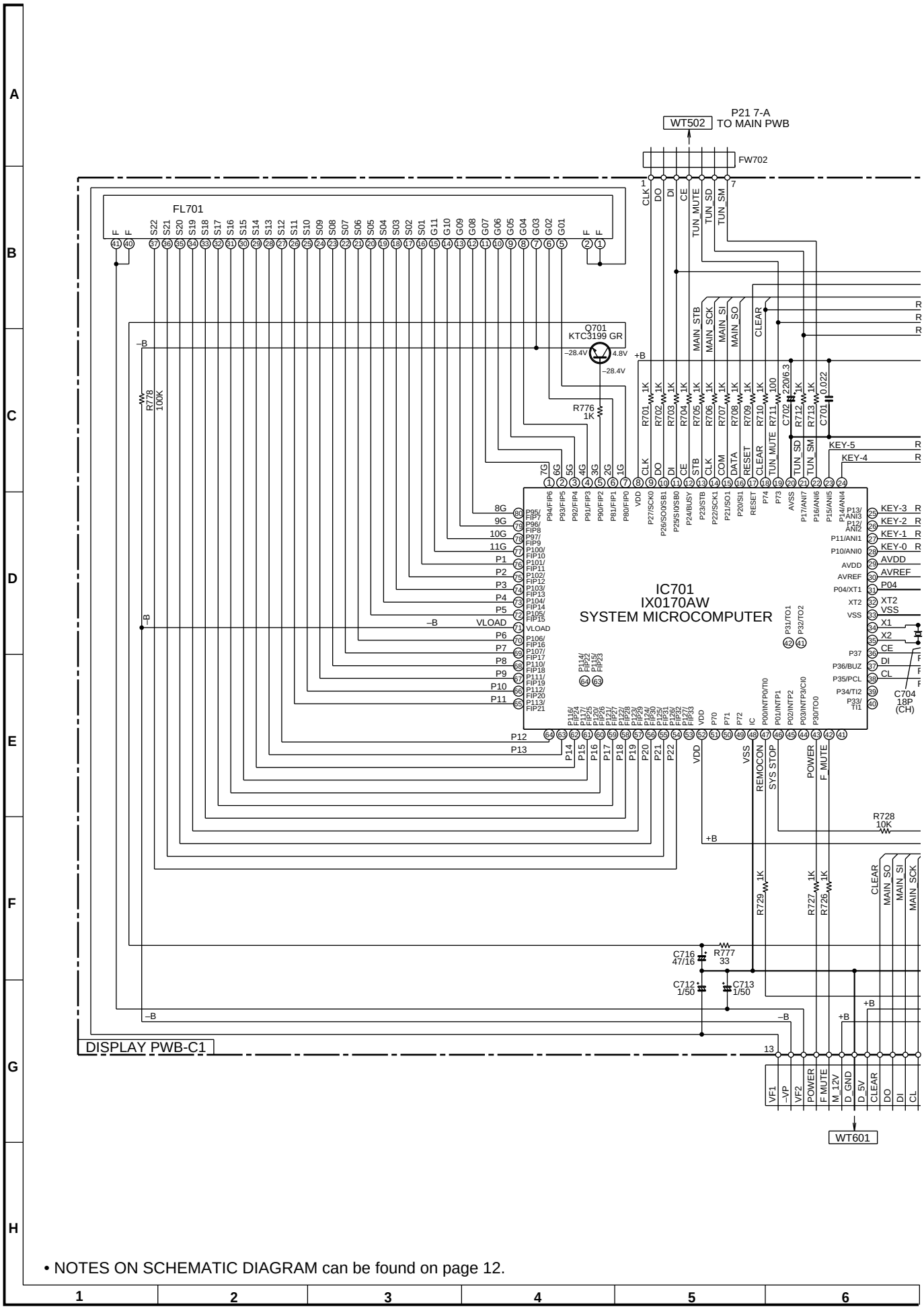
Figure 16 SCHEMATIC DIAGRAM (1/14)



• The numbers ❶ to ⓬ are waveform numbers shown in page 37.

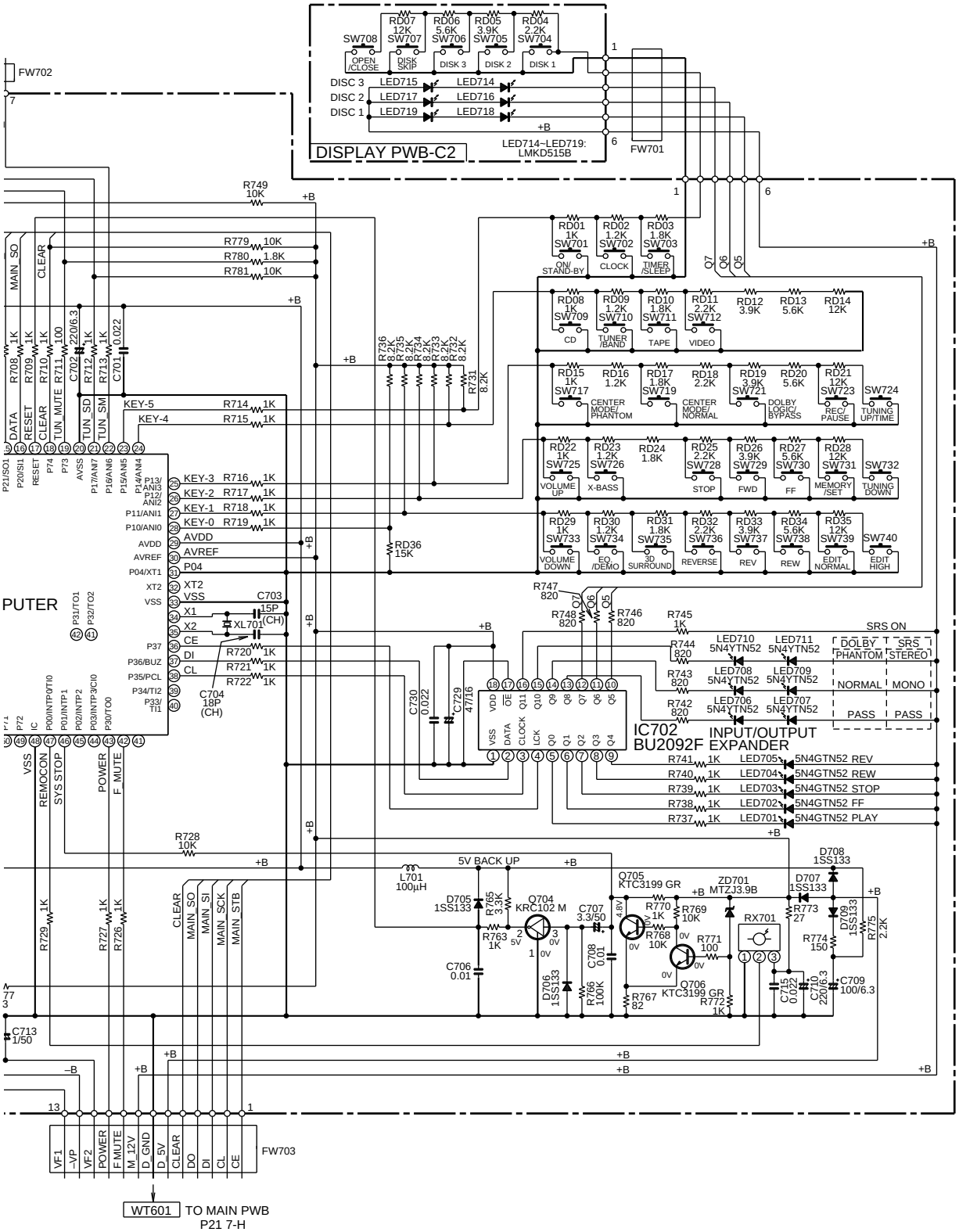
7	8	9	10	11	12

Figure 17 SCHEMATIC DIAGRAM (2/14)



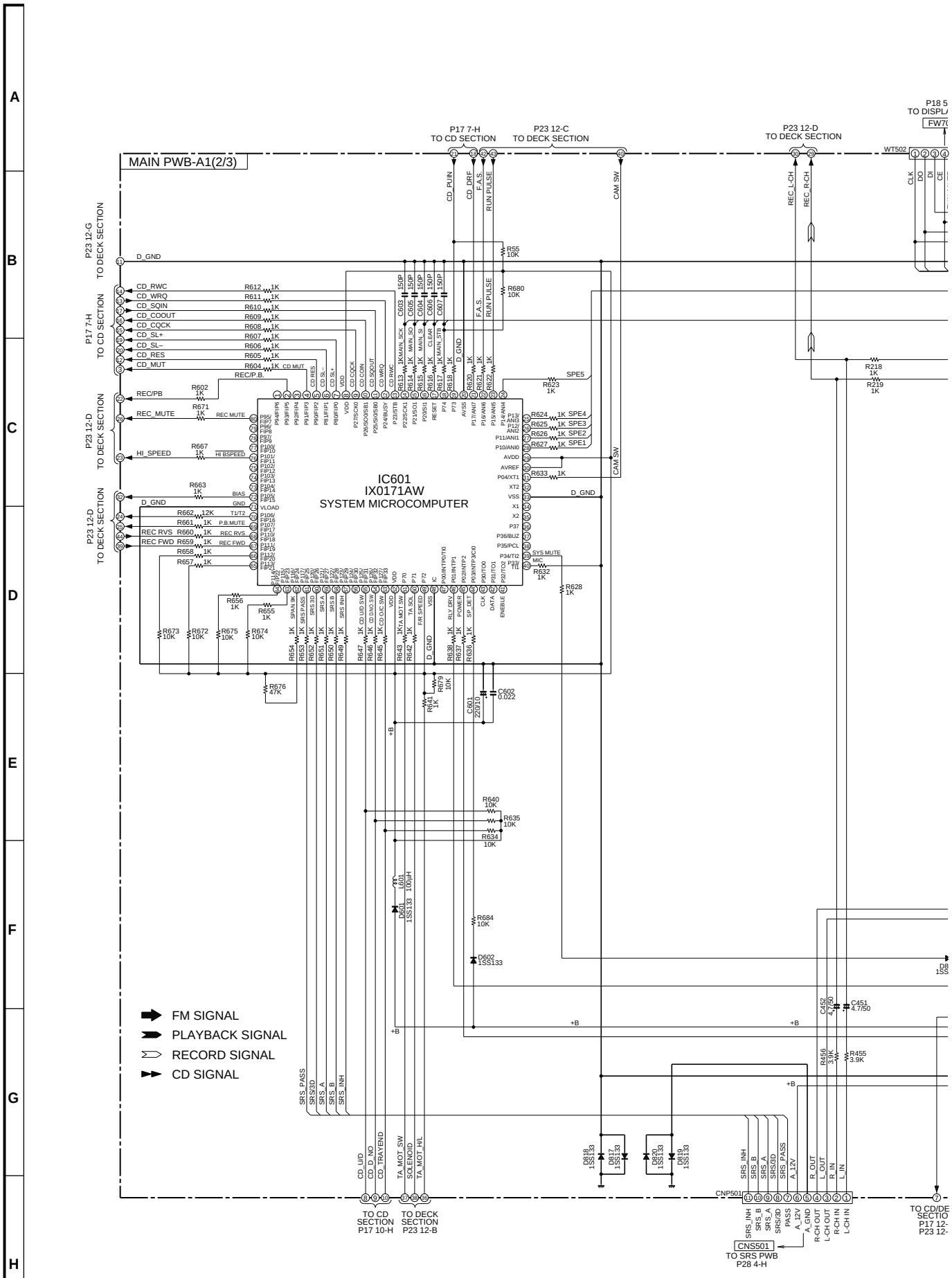
• NOTES ON SCHEMATIC DIAGRAM can be found on page 12.

Figure 18 SCHEMATIC DIAGRAM (3/14)



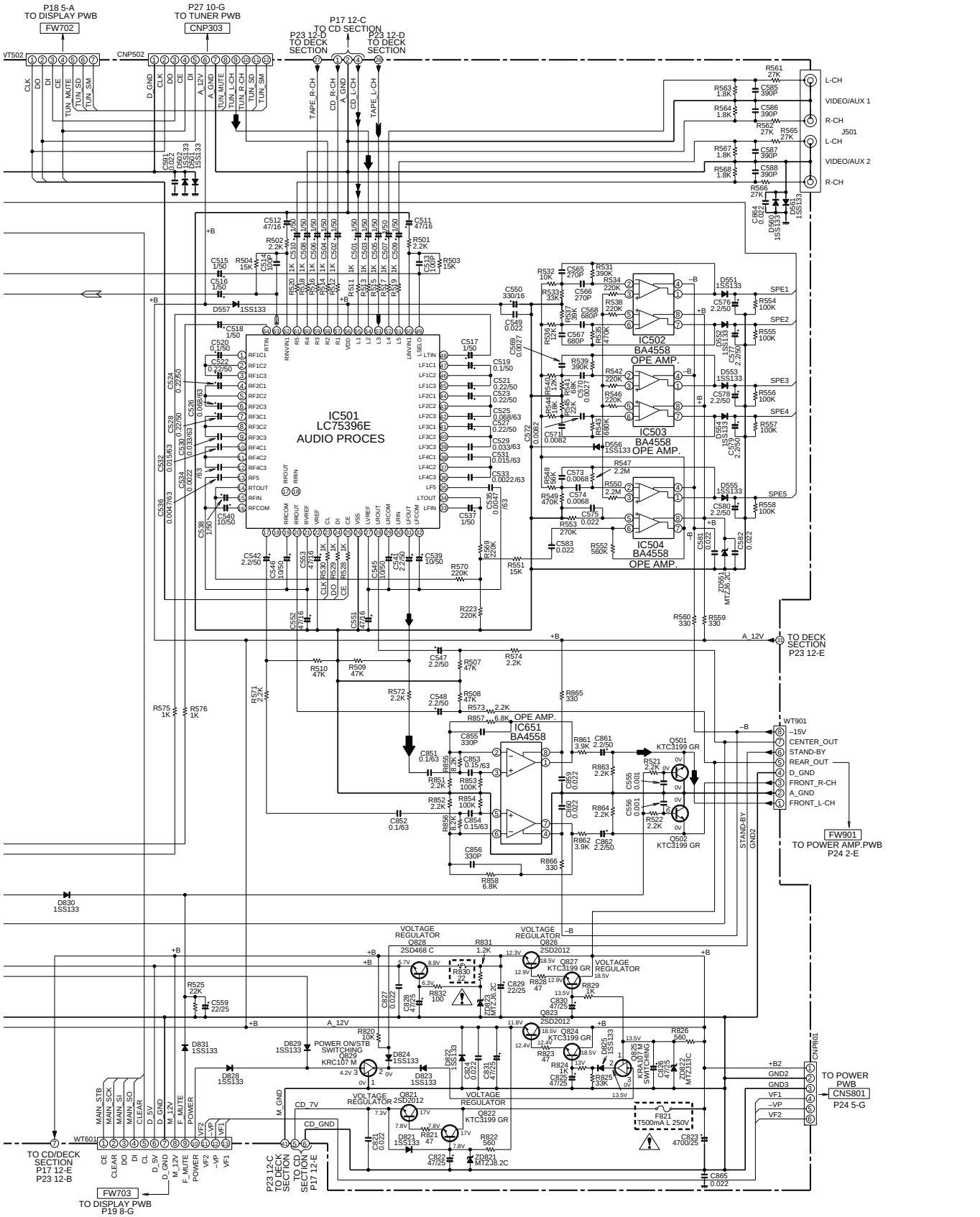
7	8	9	10	11	12

Figure 19 SCHEMATIC DIAGRAM (4/14)



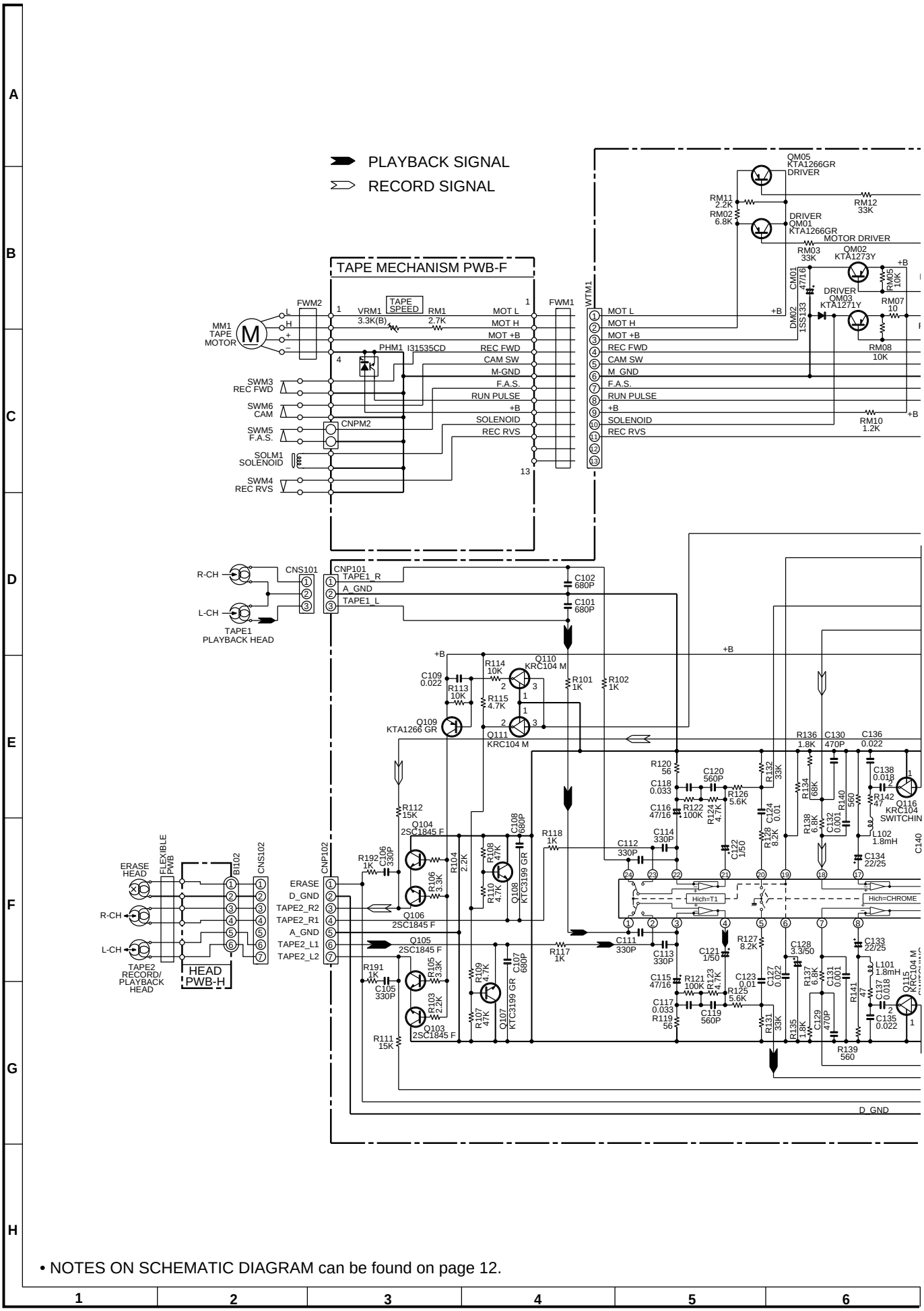
• NOTES ON SCHEMATIC DIAGRAM can be found on page 12.

Figure 20 SCHEMATIC DIAGRAM (5/14)



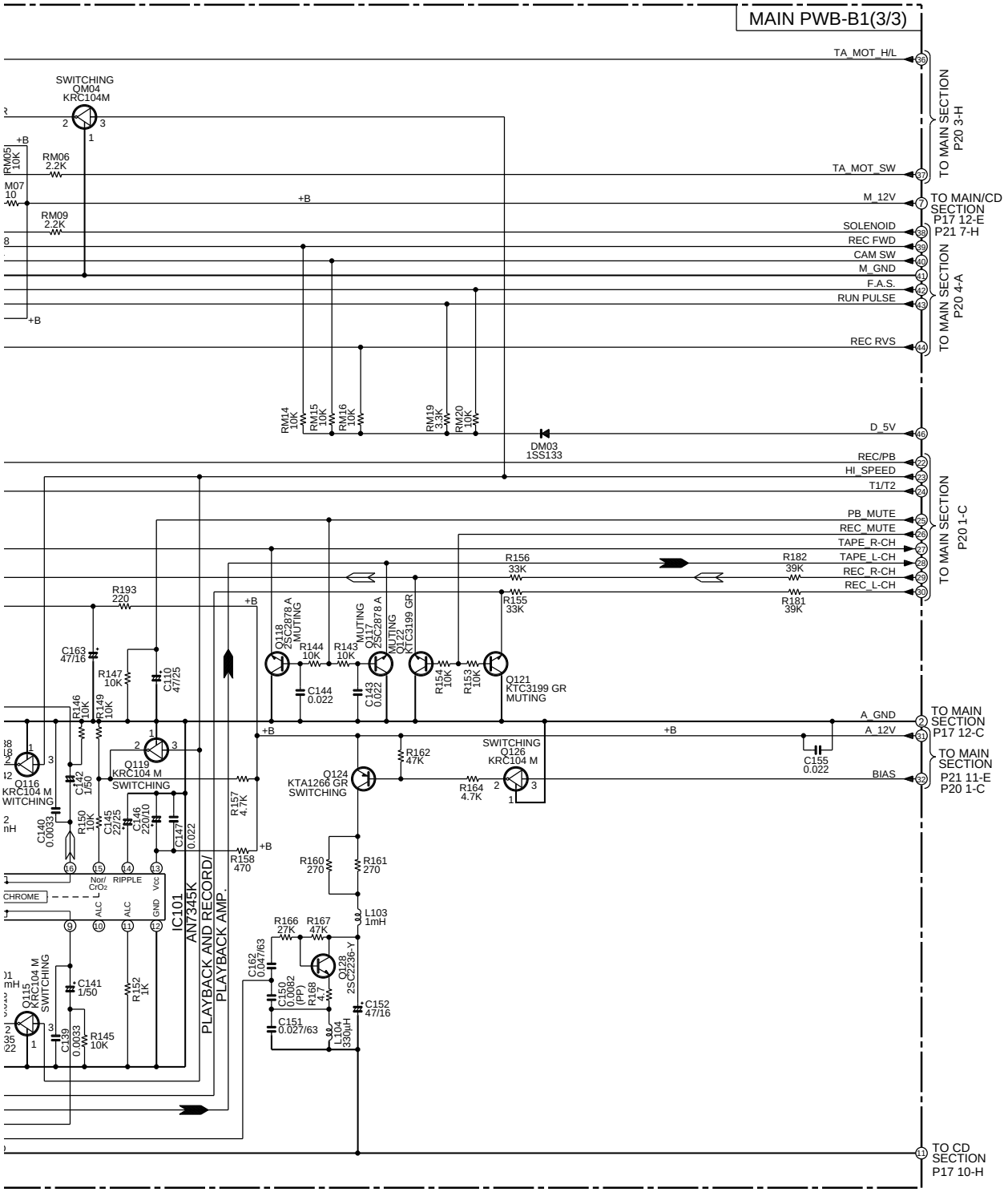
7	8	9	10	11	12

Figure 21 SCHEMATIC DIAGRAM (6/14)



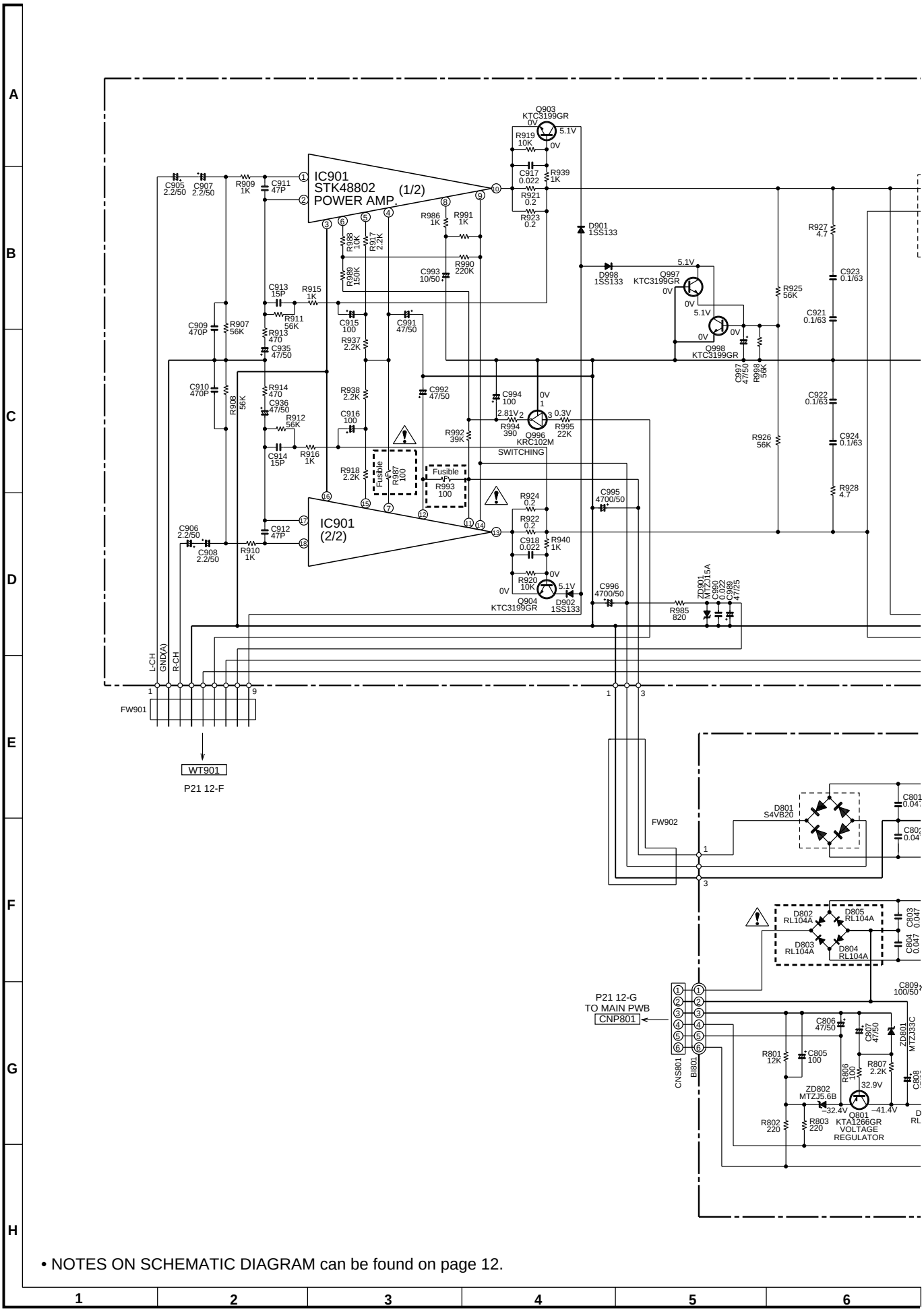
• NOTES ON SCHEMATIC DIAGRAM can be found on page 12.

Figure 22 SCHEMATIC DIAGRAM (7/14)



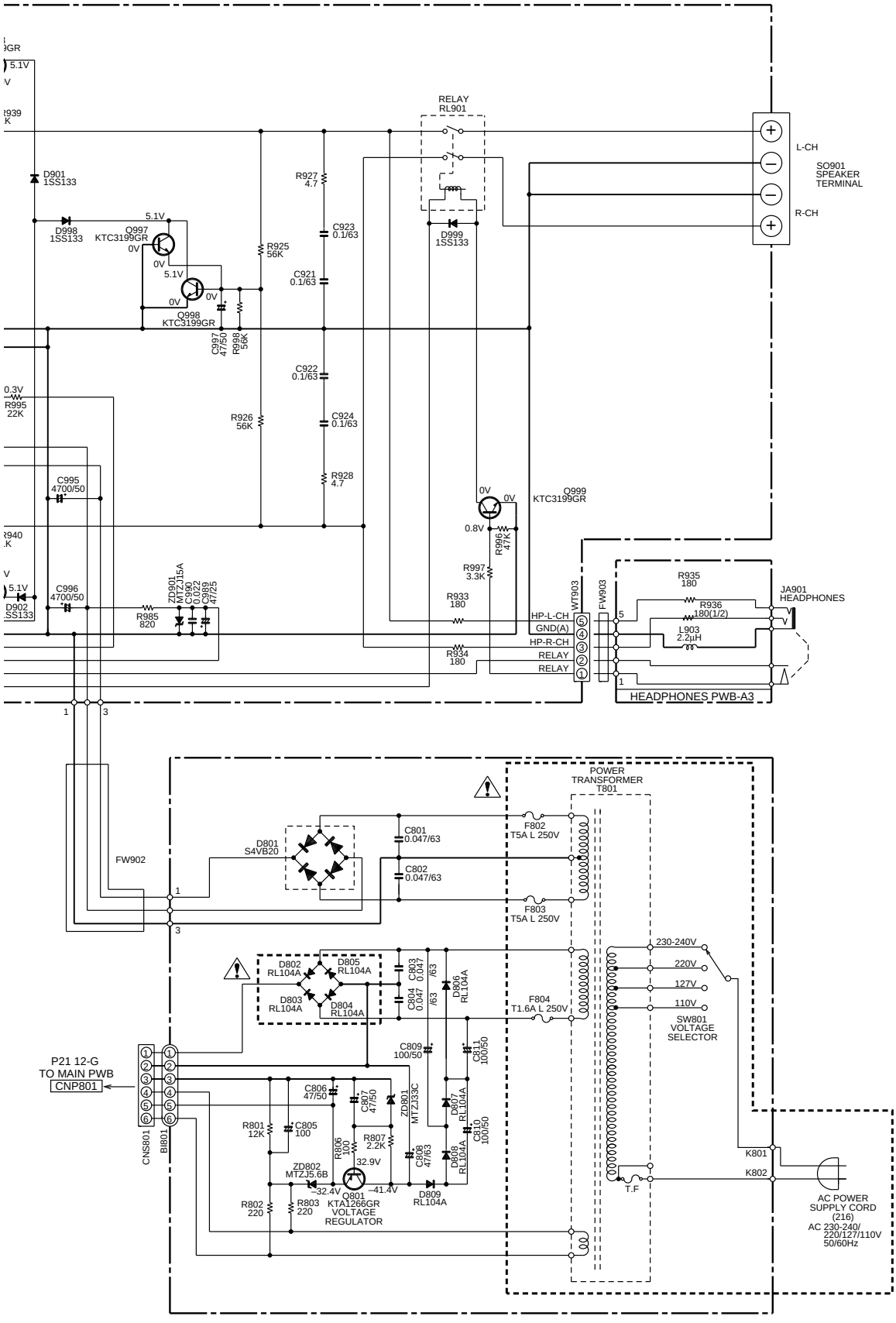
7	8	9	10	11	12

Figure 23 SCHEMATIC DIAGRAM (8/14)



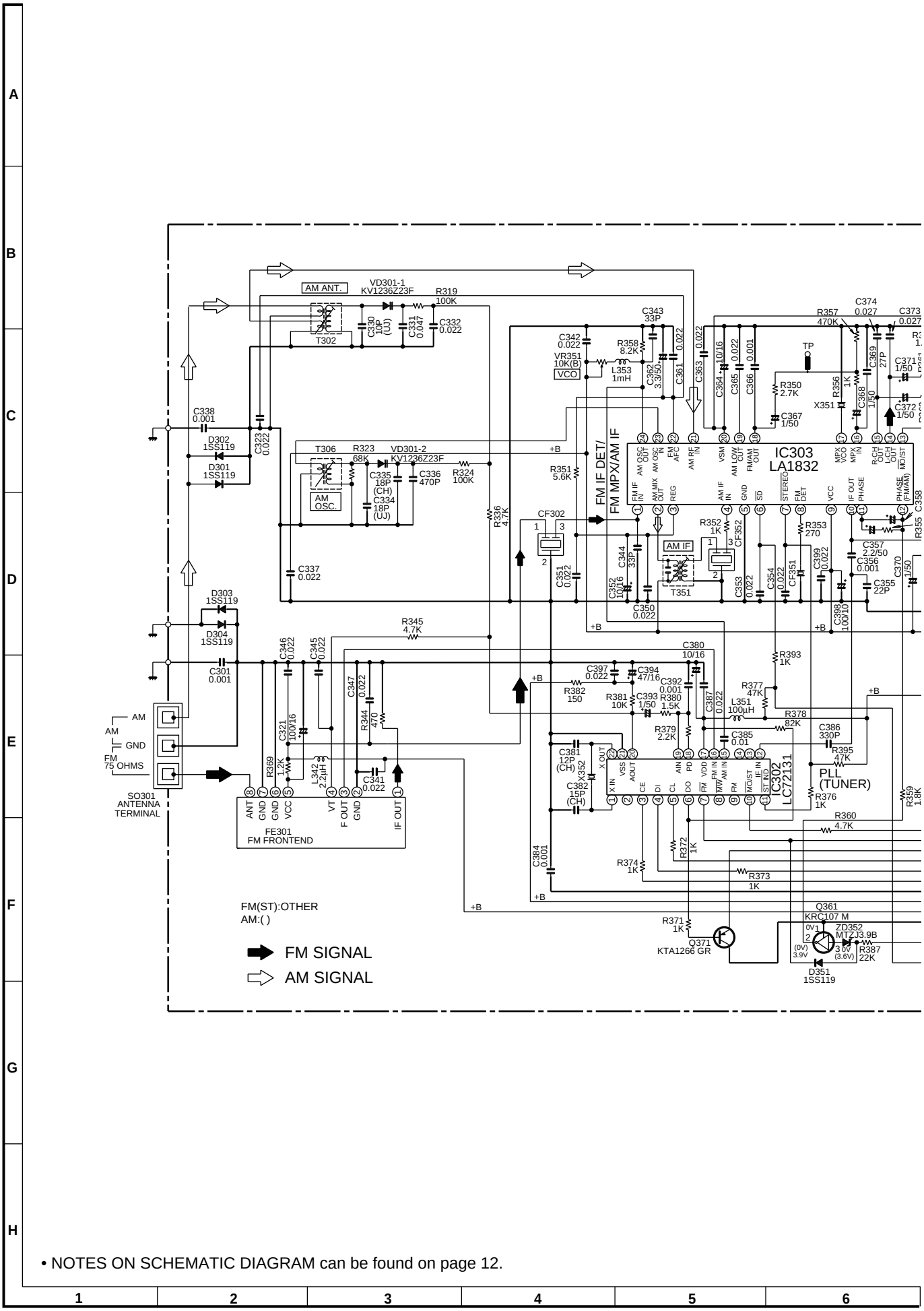
• NOTES ON SCHEMATIC DIAGRAM can be found on page 12.

Figure 24 SCHEMATIC DIAGRAM (9/14)



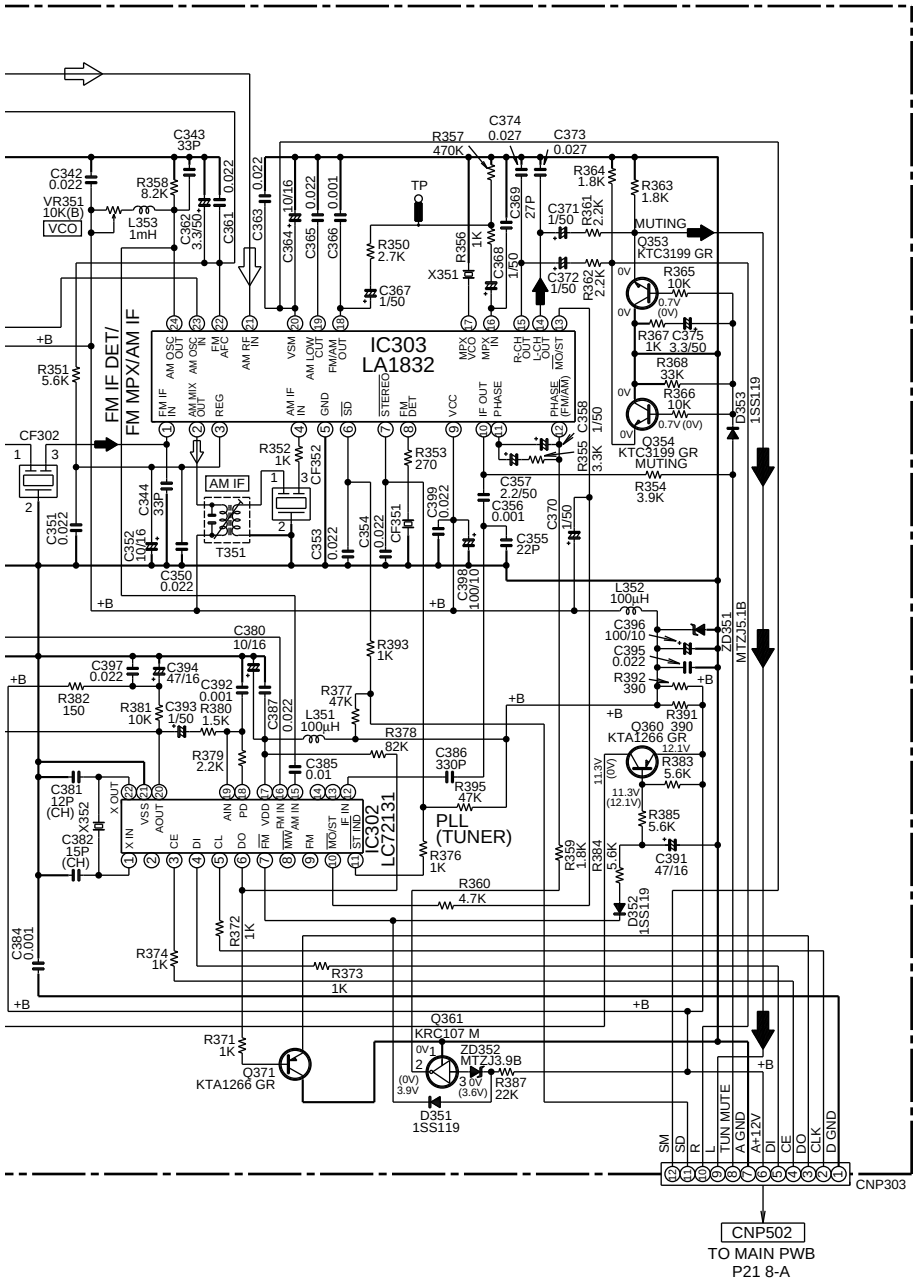
7	8	9	10	11	12

Figure 25 SCHEMATIC DIAGRAM (10/14)



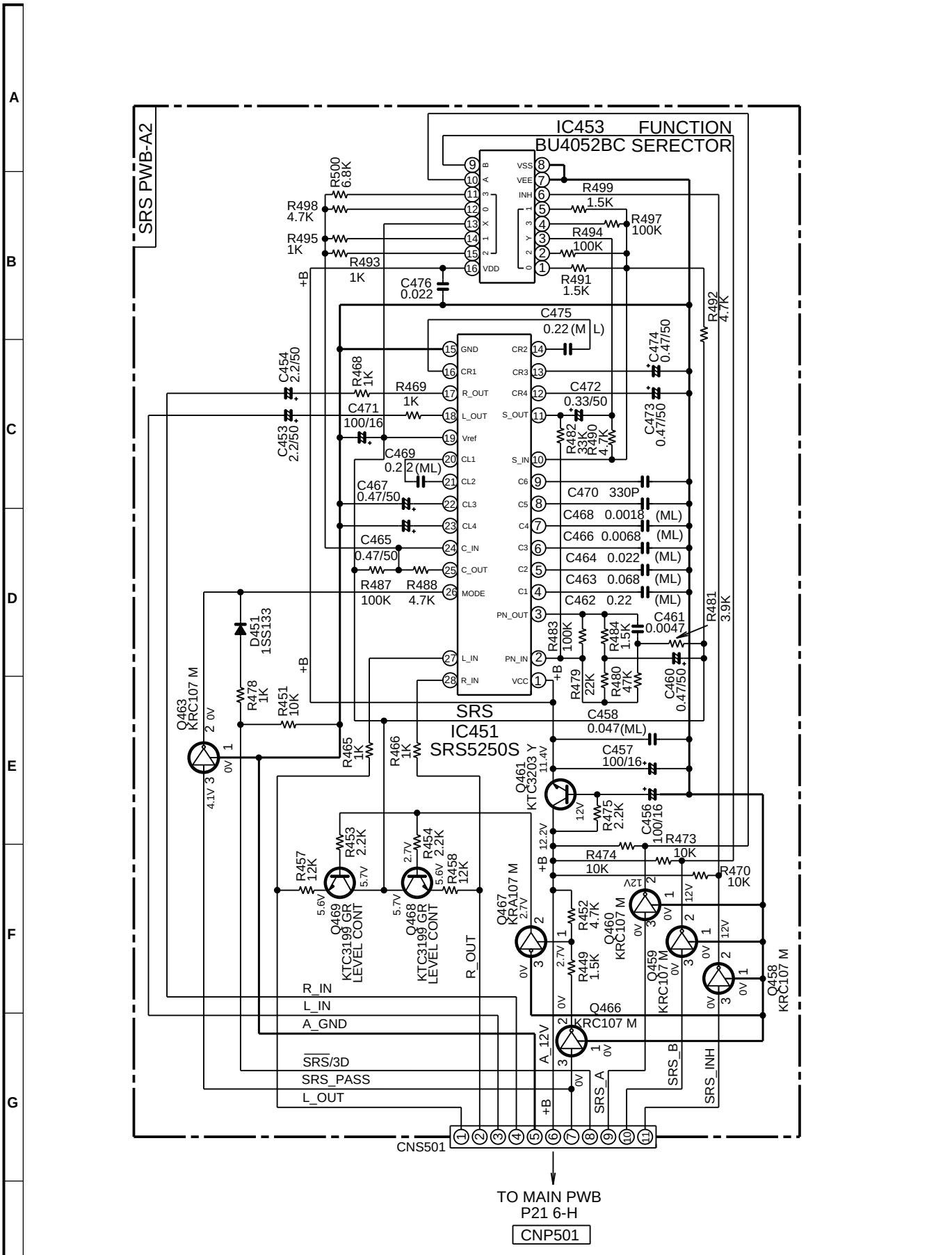
• NOTES ON SCHEMATIC DIAGRAM can be found on page 12.

Figure 26 SCHEMATIC DIAGRAM (11/14)



7	8	9	10	11	12

Figure 27 SCHEMATIC DIAGRAM (12/14)



• NOTES ON SCHEMATIC DIAGRAM can be found on page 12.

Figure 28 SCHEMATIC DIAGRAM (13/14)

( ):CrO2PLAY
< >:CrO2REC
[ ]:CD NORMAL REC
OTHER:CD NORMAL PLAY

IC101	
PIN NO.	VOLTAGE
1	0V(0V)
2	0V(0V)
3	0.6V(0.6V)
4	2.8V(2.6V)
5	0V(0V)
6	0V [1.3V](0V) <1.3V>
7	0V(0V)
8	0.6V(0.6V)
9	2.8V(2.7V)
10	2.8V(2.7V)
11	0V(0V)
12	0V(0V)
13	5.8V(5.6V)
14	3.6V(3.5V)
15	0V(0V)
16	2.8V(2.7V)
17	0.6V(0.6V)
18	0V(0V)
19	0V(1.0V)
20	0V(0V)
21	2.8V(2.6V)
22	0.6V(0.6V)
23	0V(0V)
24	0V(0V)

IC201			
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	5.3V	22	5.1V
2	5.2V	23	5.1V
3	5.2V	24	5.2V
4	5.2V	25	5.9V
5	5.2V	26	5.2V
6	5.2V	27	5.9V
7	5.2V	28	5.2V
8	5.2V	29	5.2V
9	5.2V	30	5.2V
10	5.2V	31	5.2V
11	0V	32	5.2V
12	5.2V	33	5.2V
13	5.2V	34	5.2V
14	5.2V	35	5.2V
15	5.2V	36	5.2V
16	5.9V	37	5.2V
17	5.2V	38	10.3V
18	5.9V	39	0V
19	5.1V	40	4.9V
20	5.1V	41	4.9V
21	5.1V	42	4.9V

IC202			
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	0V	13	5.2V
2	4.9V	14	5.2V
3	4.9V	15	5.2V
4	4.9V	16	5.2V
5	2.0V	17	0V
6	0.7V	18	5.2V
7	10.4V	19	5.2V
8	5.2V	20	5.2V
9	5.2V	21	5.2V
10	5.2V	22	5.3V
11	5.2V	23	2.6V
12	5.2V	24	2.4V

IC451	
PIN NO.	VOLTAGE
1	11.3V
2	5.6V
3	5.6V
4	5.6V
5	5.6V
6	5.6V
7	5.6V
8	5.6V
9	5.6V
10	5.6V
11	5.6V
12	5.6V
13	5.6V
14	5.6V
15	0V
16	5.6V
17	5.6V
18	5.6V
19	5.6V
20	5.7V
21	5.7V
22	5.6V
23	5.6V
24	5.7V
25	5.7V
26	5.6V
27	5.6V
28	5.6V

IC453	
PIN NO.	VOLTAGE
1	5.7V
2	5.7V
3	5.7V
4	5.7V
5	5.7V
6	12.0V
7	6.0V
8	6.0V
9	12.0V
10	12.0V
11	5.7V
12	0.2V
13	5.7V
14	0V
15	0V
16	11.4V

IC501	
PIN NO.	VOLTAGE
1	5.5V
2	5.5V
3	5.4V
4	5.3V
5	5.5V
6	5.3V
7	5.3V
8	5.5V
9	5.3V
10	5.3V
11	5.5V
12	5.3V
13	5.5V
14	5.5V
15	5.5V
16	5.5V
17	5.5V
18	5.5V
19	5.5V
20	5.5V
21	5.5V
22	5.5V
23	0V
24	0V
25	0V
26	0V
27	5.5V
28	5.5V
29	5.5V
30	5.5V
31	5.5V
32	5.5V
33	5.5V
34	5.5V
35	5.5V
36	5.3V
37	5.5V
38	5.3V
39	5.3V
40	5.5V
41	5.3V
42	5.3V
43	5.5V
44	5.3V
45	5.3V
46	5.5V
47	5.5V
48	5.5V
49	5.5V
50	5.5V
51	5.5V
52	5.5V
53	5.5V
54	5.5V
55	5.5V
56	11.0V
57	5.5V
58	5.5V
59	5.5V
60	5.5V
61	5.5V
62	5.5V
63	5.5V
64	5.5V

IC502	
PIN NO.	VOLTAGE
1	0V
2	0V
3	0V
4	–11.7V
5	0V
6	0V
7	0V
8	6.4V

IC503	
PIN NO.	VOLTAGE
1	0V
2	0V
3	0V
4	–11.7V
5	0V
6	0V
7	0V
8	6.4V

IC504	
PIN NO.	VOLTAGE
1	0V
2	0V
3	0V
4	–11.7V
5	0V
6	0V
7	0V
8	6.4V

IC601			
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	0V	41	4.9V
2	4.9V	42	4.9V
3	0V	43	5.4V
4	4.9V	44	4.9V
5	4.9V	45	4.9V
6	0V	46	4.9V
7	0V	47	4.8V
8	4.9V	48	0V
9	4.9V	49	0V
10	4.9V	50	12.3V
11	0V	51	12.3V
12	0V	52	4.9V
13	0V	53	0V
14	4.8V	54	4.9V
15	0V	55	0V
16	0V	56	5.2V
17	4.8V	57	0V
18	3.5V	58	0V
19	0V	59	0V
20	0V	60	0V
21	0V	61	4.9V
22	5.2V	62	4.9V
23	5.2V	63	4.9V
24	0V	64	4.9V
25	0V	65	4.9V
26	0V	66	4.9V
27	0V	67	5.2V
28	0V	68	5.2V
29	4.9V	69	4.8V
30	4.9V	70	4.9V
31	5.2V	71	0V
32	0V	72	0V
33	0V	73	0V
34	2.3V	74	0V
35	2.3V	75	0V
36	4.9V	76	4.9V
37	4.9V	77	0V
38	4.9V	78	0V
39	4.9V	79	0V
40	0V	80	4.9V

IC651	
PIN NO.	VOLTAGE
1	0V
2	0V
3	0V
4	–13.2V
5	0V
6	0V
7	0V
8	11.0V

IC701			
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	–28.4V	41	0V
2	–28.4V	42	0V
3	–28.4V	43	4.9V
4	–28.4V	44	0V
5	–28.4V	45	0V
6	–28.4V	46	4.8V
7	–28.4V	47	4.7V
8	4.85V	48	0V
9	4.85V	49	0V
10	0V	50	0V
11	4.75V	51	0V
12	0V	52	4.9V
13	3.3V	53	4.9V
14	4.7V	54	–22V
15	0V	55	–28.2V
16	0V	56	–18.9V
17	5.0V	57	–31.3V
18	4.8V	58	–31.3V
19	4.8V	59	–31.3V
20	0V	60	–25.1V
21	4.8V	61	–15.9V
22	4.8V	62	–22.2V
23	4.8V	63	–22.2V
24	4.8V	64	–18.9V
25	4.8V	65	–13.0V
26	4.8V	66	–31.3V
27	4.8V	67	–28.2V
28	3.1V	68	–31.3V
29	4.9V	69	–19.0V
30	4.8V	70	–31.3V
31	0V	71	–31.4V
32	4.8V	72	–31.3V
33	0V	73	–31.3V
34	2.3V	74	–31.3V
35	2.1V	75	–31.3V
36	0V	76	–22.1V
37	0V	77	–28.4V
38	0V	78	–28.4V
39	0V	79	–28.4V
40	0V	80	–28.4V

IC702	
PIN NO.	VOLTAGE
1	0V
2	1.0V
3	1.0V
4	1.0V
5	0V
6	1.8V
7	1.8V
8	1.8V
9	10.6V
10	9.1V
11	1.8V
12	9.1V
13	1.8V
14	9.4V
15	9.3V
16	10.8V
17	0V
18	4.8V

IC901	
PIN NO.	VOLTAGE
1	0V
2	0V
3	0V
4	–31.9V
5	–1.3V
6	2.7V
7	–34V
8	–34.6V
9	–34.9V
10	0V
11	34.9V
12	33.2V
13	0V
14	–34.9V
15	–1.3V
16	0V
17	0V
18	0V

IC951	
PIN NO.	VOLTAGE
1	26.7V
2	15.4V
3	0V
4	0V
5	15.4V
6	26.7V
7	29.8V
8	1.3V
9	0V
10	28.7V
11	0V
12	3.3V
13	0V
14	1.3V

( ):AM
OTHER:FM(ST)

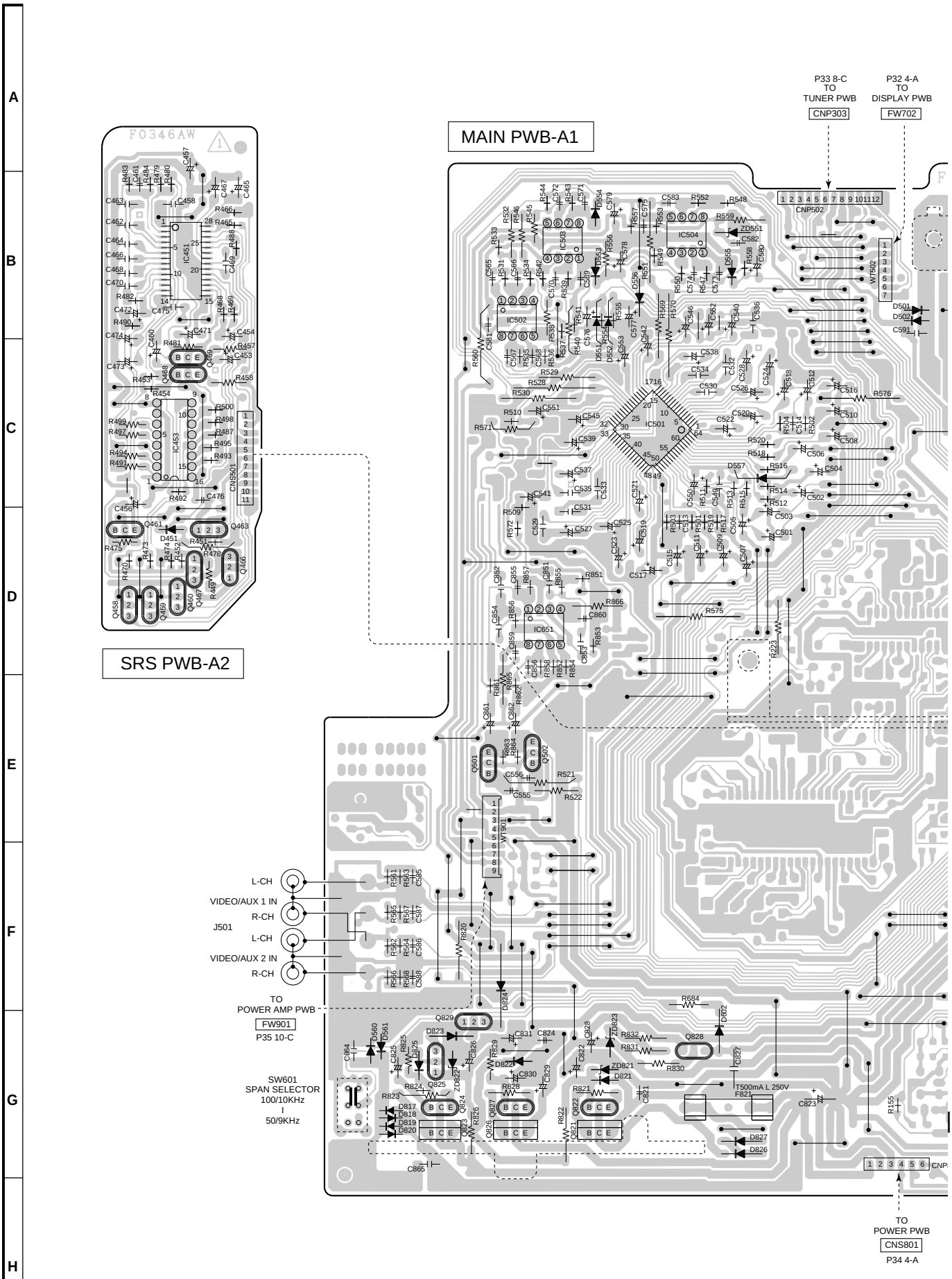
IC302	
PIN NO.	VOLTAGE
1	2.6V
2	0V
3	0V
4	0V
5	4.8V
6	0.5V(5V)
7	0.3V(12.3V)
8	12V(0V)
9	0.4V(0V)
10	4V(0V)
11	5.1V(5.1V)
12	0V
13	0V
14	0V
15	0V(2.5V)
16	2.5V(0V)
17	5.1V
18	0.9V
19	0.9V
20	1.9V(1.1V)
21	0V
22	2.6V

IC303			
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	2.2V	13	4.0V
2	5.1V	14	1.4V
3	2.2V	15	1.4V
4	2.2V	16	2.2V
5	0V	17	2.4V(0V)
6	5.0V	18	2.4V(0.9V)
7	5.1V	19	0V(1.9V)
8	2.9V(3.6V)	20	0.9V(0.9V)
9	5.1V	21	2.5V(2.1V)
10	3.5V(0.3V)	22	2.5V(2.1V)
11	3.9V(1.9V)	23	5.1V(5.1V)
12	3.9V(1.2V)	24	3.6V(3.6V)

ICT21	
PIN NO.	VOLTAGE
1	2.6V(0.2V)
2	2.6V(0V)
3	5.2V(0V)
4	0V(0V)
5	2.6V(0V)
6	2.6V(0V)
7	0V(0V)
8	0V(0V)
9	0V
10	0V
11	0V
12	2.6V(0V)
13	2.7V(0V)
14	5.2V(0V)
15	0V(0V)
16	0V
17	0V
18	0V
19	0V(0.6V)
20	0V(5V)
21	4.8V(4.8V)
22	0V(0V)
23	0V(0V)
24	0V(0V)

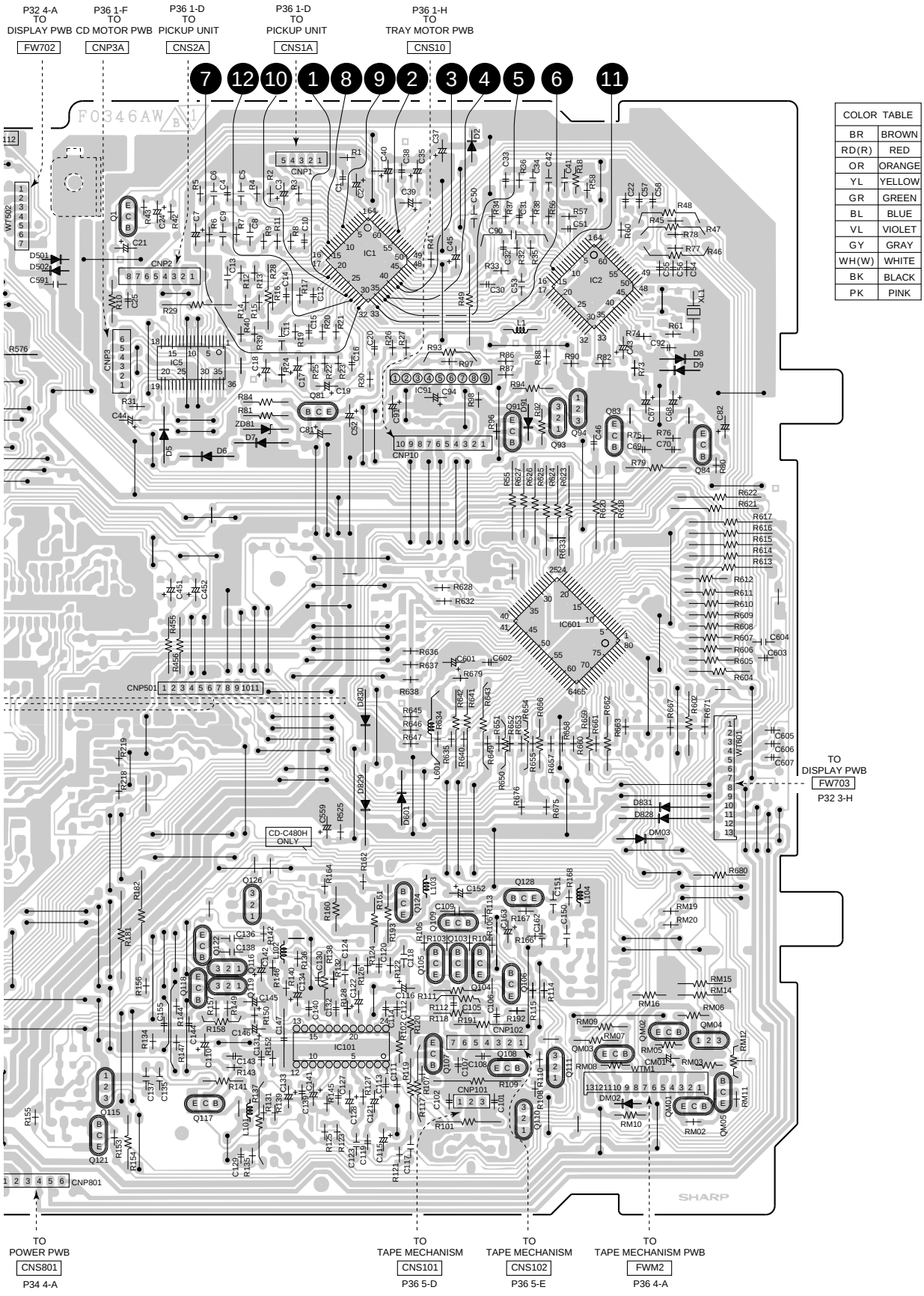
7	8	9	10	11	12

Figure 29 SCHEMATIC DIAGRAM (14/14)



• The numbers ❶ to ⓬ are waveform numbers shown in page 37.

Figure 30 WIRING SIDE OF P.W.BOARD (1/7)


P32 4-A TO DISPLAY PWB FW702
P36 1-F TO CD MOTOR PWB CNP3A
P36 1-D TO PICKUP UNIT CNS2A
P36 1-D TO PICKUP UNIT CNS1A
P36 1-H TO TRAY MOTOR PWB CNS10
7 12 10 1 8 9 2 3 4 5 6 11
F0346AW A
COLOR TABLE
BR BROWN
RD(R) RED
OR ORANGE
YL YELLOW
GR GREEN
BL BLUE
VL VIOLET
GY GRAY
WH(W) WHITE
BK BLACK
PK PINK
CD-C480H ONLY
TO DISPLAY PWB FW703 P32 3-H
TO POWER PWB CNS801 P34 4-A
TO TAPE MECHANISM CNS101 P36 5-D
TO TAPE MECHANISM CNS102 P36 5-E
TO TAPE MECHANISM PWB FWM2 P36 4-A
SHARP

7	8	9	10	11	12

Figure 31 WIRING SIDE OF P.W.BOARD (2/7)

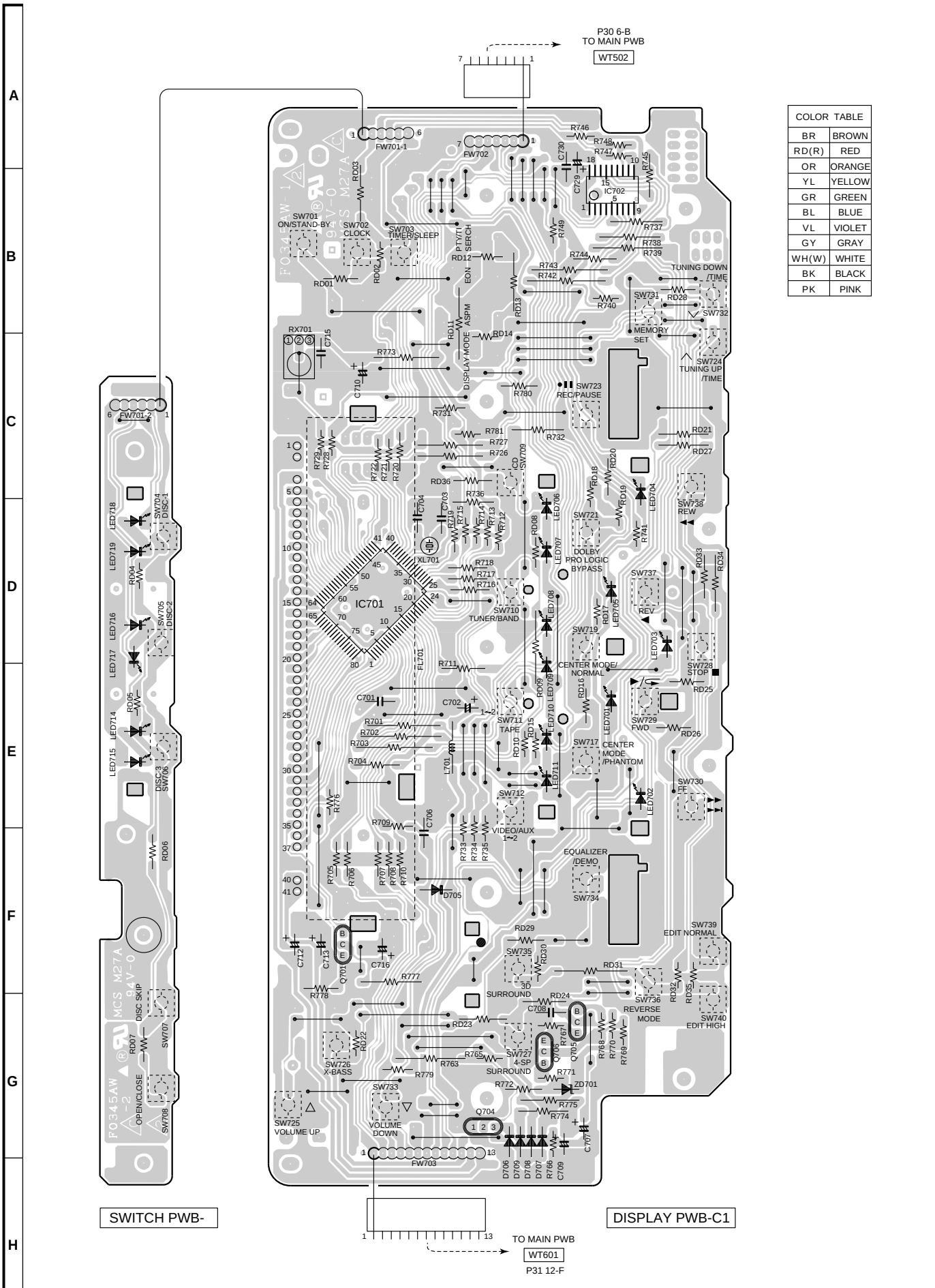
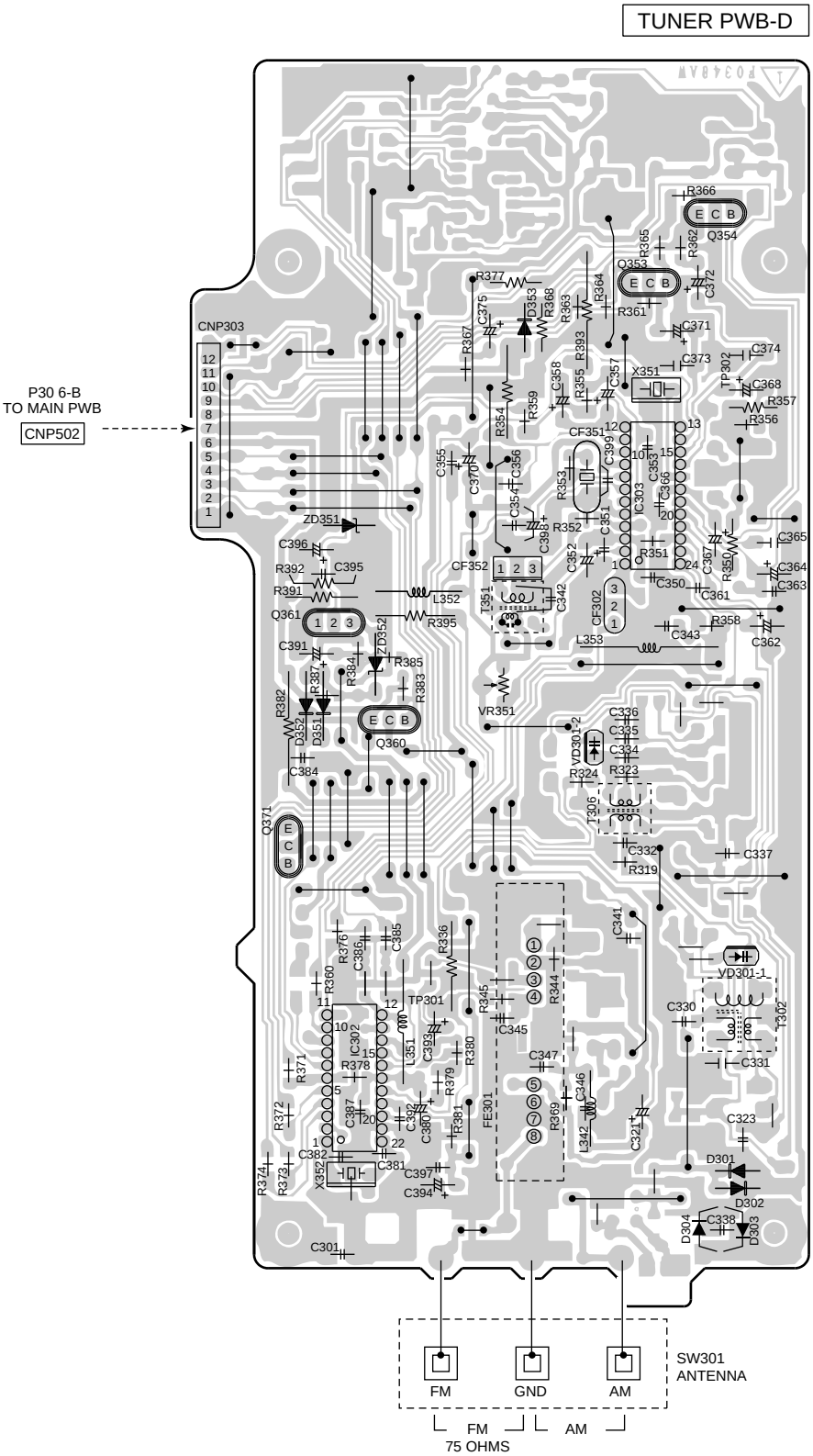


Figure 32 WIRING SIDE OF P.W.BOARD (3/7)



7	8	9	10	11	12

Figure 33 WIRING SIDE OF P.W.BOARD (4/7)

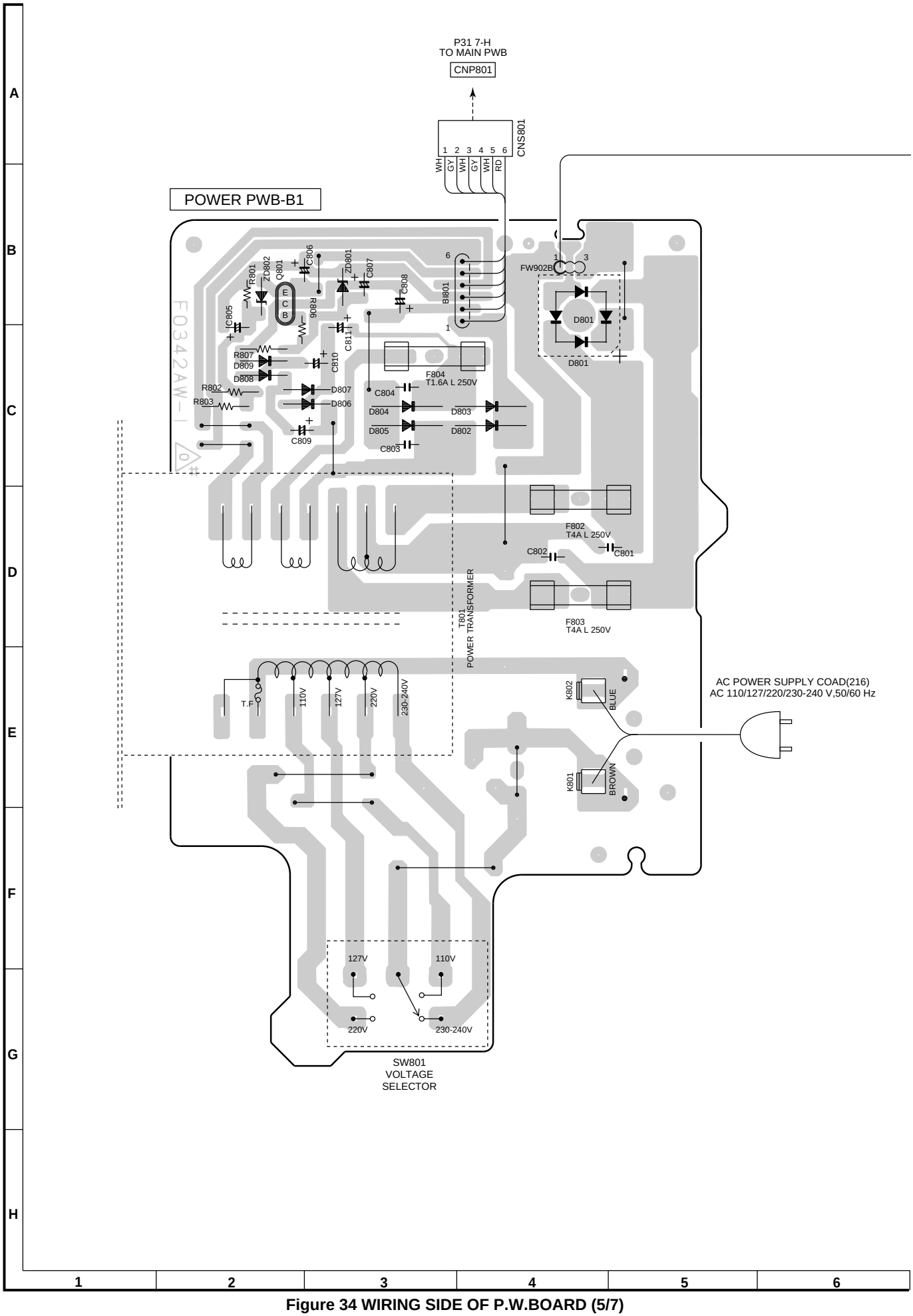
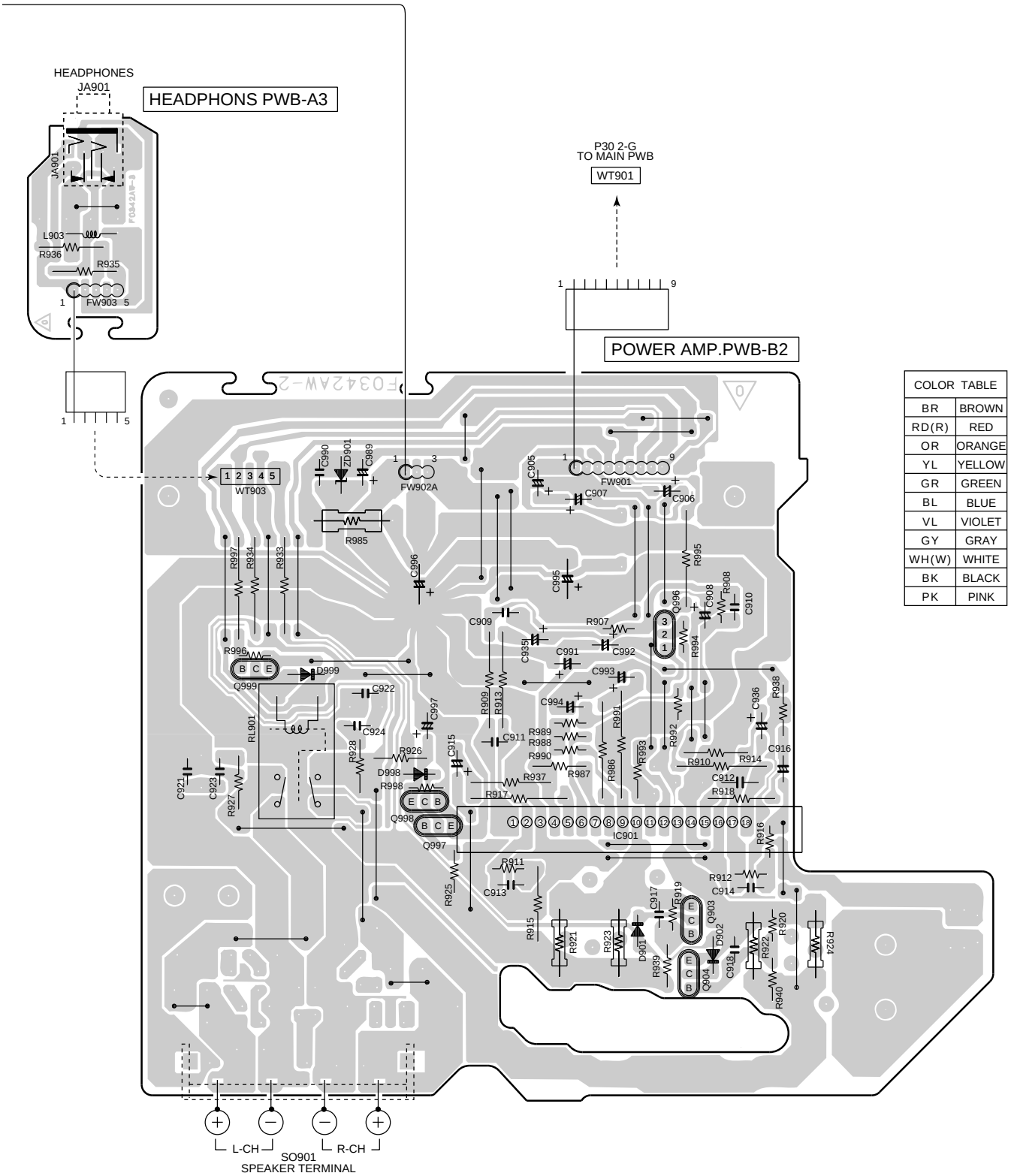


Figure 34 WIRING SIDE OF P.W.BOARD (5/7)



7	8	9	10	11	12

Figure 35 WIRING SIDE OF P.W.BOARD (6/7)

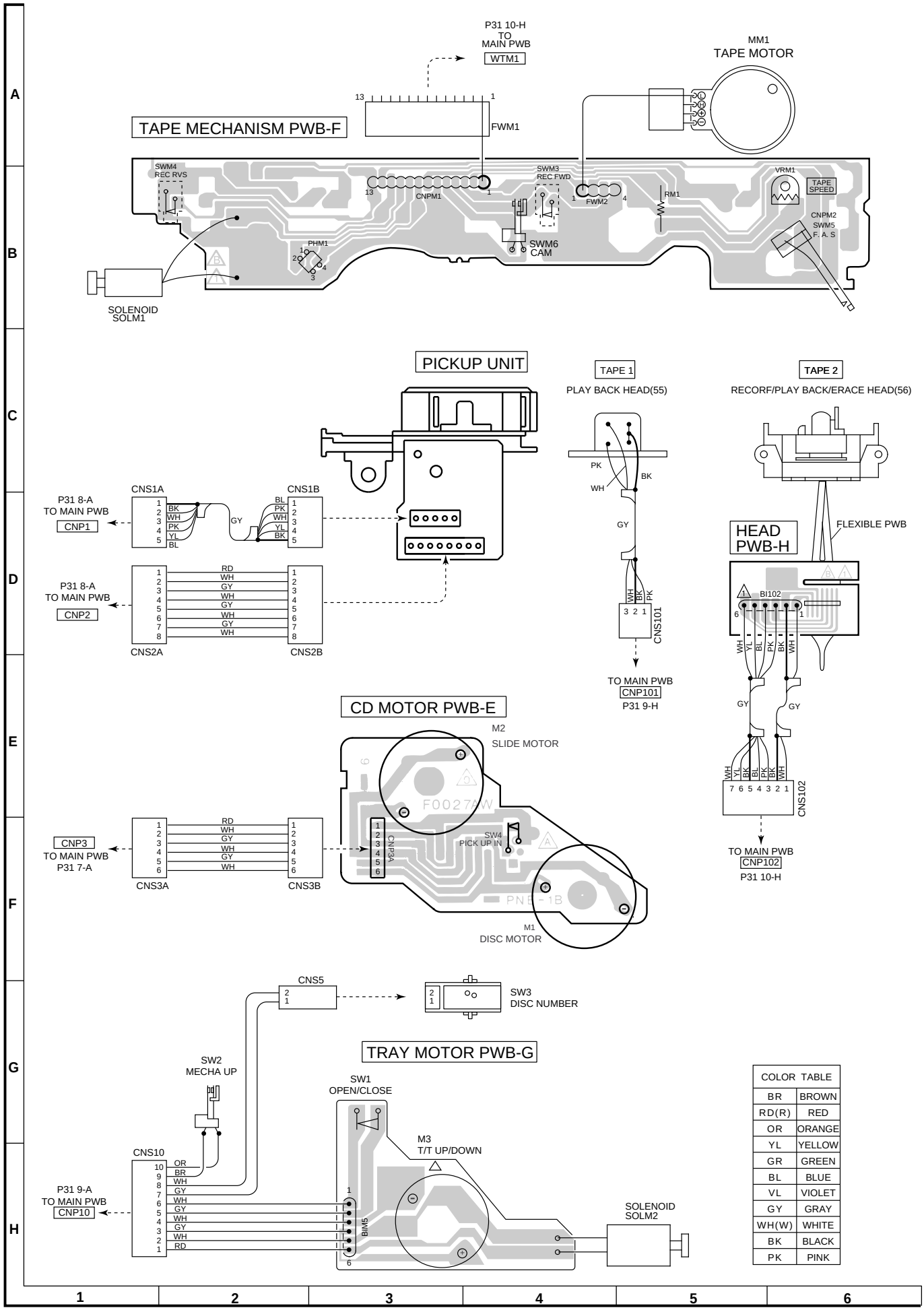


Figure 36 WIRING SIDE OF P.W.BOARD (7/7)

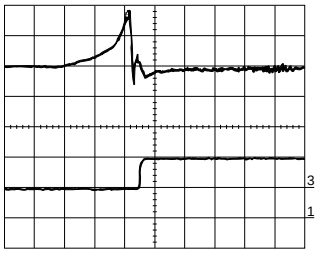
WAVEFORMS OF CD CIRCUIT

STOP → PLAY

FOCUS — SERCH

❶ 5ms
0.50 V
IC1 (20) F.E

❷ 5ms
5.0 V
IC1 (54) DRF

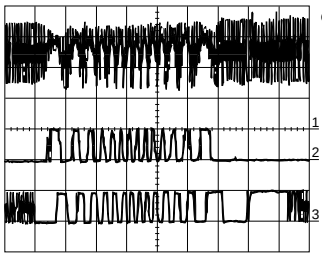


❸ 0.5ms
1.00 V
HF

❹ 0.5ms
5.0 V
HFL

❺ 0.5ms
5.0 V
TES

CUE

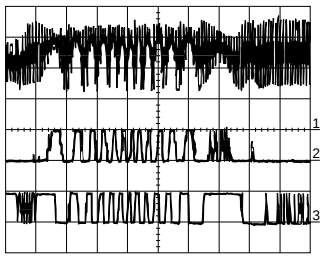


❸ 0.5ms
1.00 V
HF

❹ 0.5ms
5.0 V
HFL

❺ 0.5ms
5.0 V
TES

REVIEW



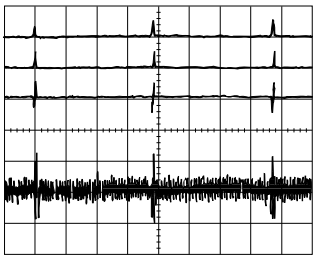
❻ 50ms
10.0 V
JP+

❼ 50ms
10.0 V
JP-

❽ 50ms
0.50 V
JP

❾ 50ms
1.00 V
TE

CUE

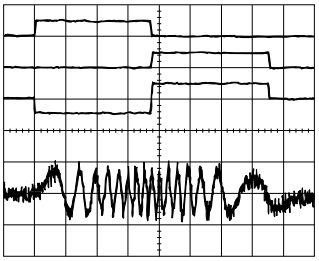


❻ 0.5ms
10.0 V
JP+

❼ 0.5ms
10.0 V
JP-

❽ 0.5ms
0.50 V
JP

❾ 0.5ms
1.00 V
TE



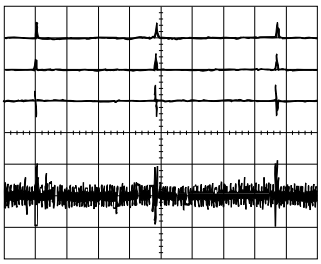
❻ 50ms
10.0 V
JP+

❼ 50ms
10.0 V
JP-

❽ 50ms
0.50 V
JP

❾ 50ms
1.00 V
TE

REVIEW

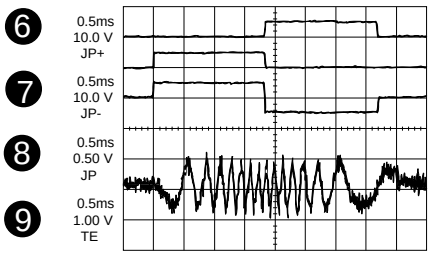


❻ 0.5ms
10.0 V
JP+

❼ 0.5ms
10.0 V
JP-

❽ 0.5ms
0.50 V
JP

❾ 0.5ms
1.00 V
TE

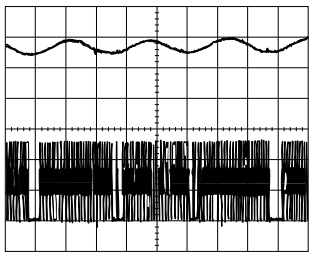


PLAY

NORMAL DISC
TN0=01

❿ 20ms
1.00 V
SPO

⓫ 20ms
2.00 V
CLV+

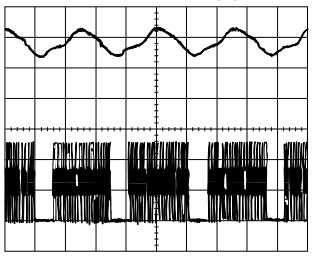


PLAY

TCD-712 (140mm)
TN0=01

❿ 50ms
1.00 V
SPO

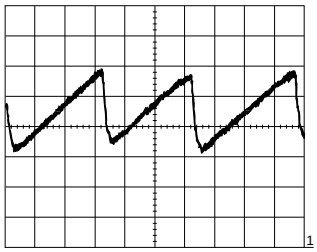
⓫ 50ms
2.00 V
CLV+



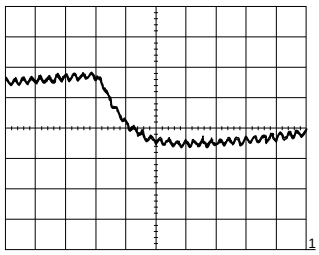
PLAY

TCD-712

⓬ 5s
100mV
SLD



⓬ 0.5s
100mV
SLD



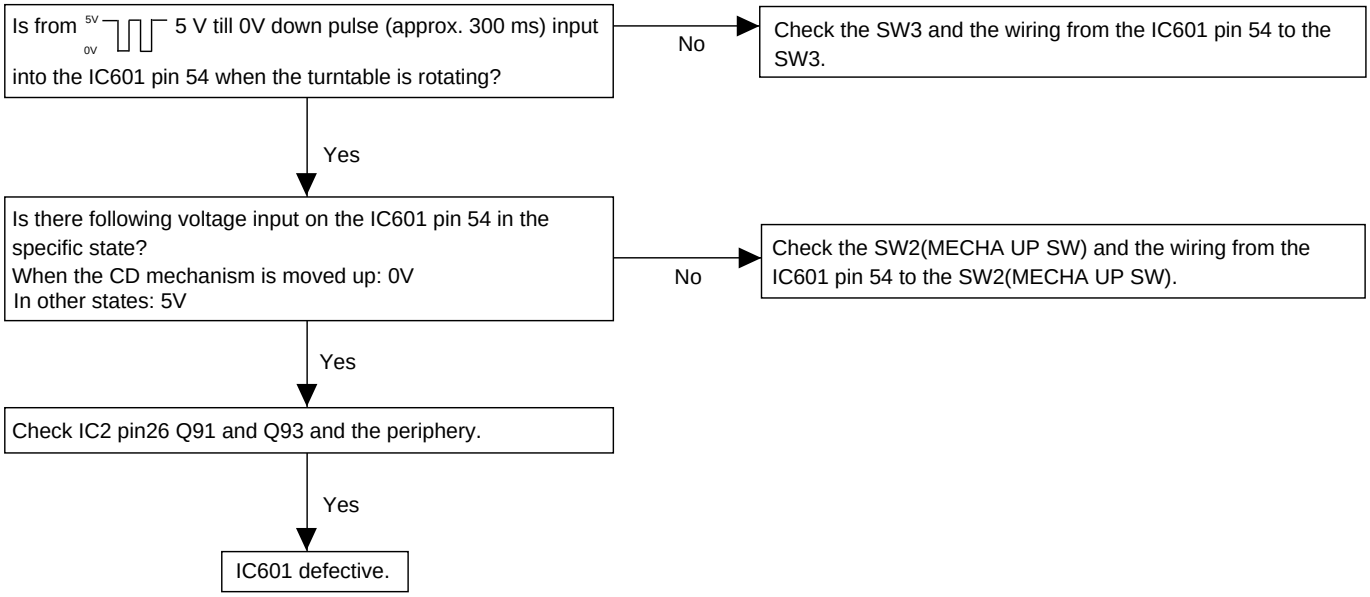
TROUBLESHOOTING (CD SECTION)

When the CD does not function

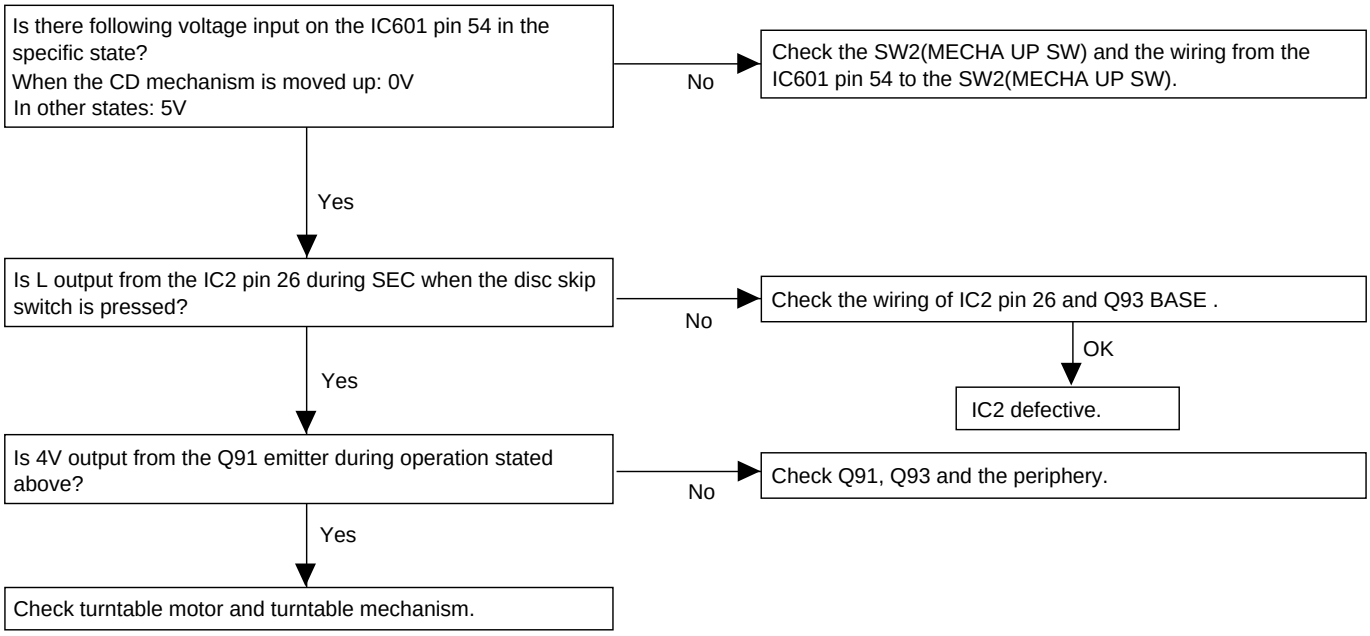
When the CD section does not operate When the objective lens of the optical pickup is dirty,this section may not operate.Clean the objective lens,and check the playback operation.When this section does not operate even after the above step is taken,check the following items.
Remove the cabinet and follow the troubleshooting instructions.
"Track skipping and/or no TOC(Table Of Contents) may be caused by build up of dust other foreign matter on the laser pickup lens. Before attempting any adjustment make certain that the lens is clean. If not, clean it as mentioned below."

Turn the power off.
Gently clean the lens with a lens cleaning tissue and a small amount of isopropyl alcohol.
Do not touch the lens with the bare hand.

• When the turntable fails to stop.


Is from 5V 0V 5 V till 0V down pulse (approx. 300 ms) input into the IC601 pin 54 when the turntable is rotating?
No
Check the SW3 and the wiring from the IC601 pin 54 to the SW3.
Yes
Is there following voltage input on the IC601 pin 54 in the specific state?
When the CD mechanism is moved up: 0V
In other states: 5V
No
Check the SW2(MECHA UP SW) and the wiring from the IC601 pin 54 to the SW2(MECHA UP SW).
Yes
Check IC2 pin26 Q91 and Q93 and the periphery.
Yes
IC601 defective.

• When turntable fails to move.


Is there following voltage input on the IC601 pin 54 in the specific state?
When the CD mechanism is moved up: 0V
In other states: 5V
No
Check the SW2(MECHA UP SW) and the wiring from the IC601 pin 54 to the SW2(MECHA UP SW).
Yes
Is L output from the IC2 pin 26 during SEC when the disc skip switch is pressed?
No
Check the wiring of IC2 pin 26 and Q93 BASE .
OK
IC2 defective.
Yes
Is 4V output from the Q91 emitter during operation stated above?
No
Check Q91, Q93 and the periphery.
Yes
Check turntable motor and turntable mechanism.

• When the CD tray fails to open or close.

Is there following voltage input in specific state of IC801 pin 53?
Open state: 0V
Close state: 0V
Intermediate state between open state and close state: 5V

No → Check the OPEN CLOSE SW and the wiring from the IC801 pin 53 to the OPEN CLOSE SW.

Yes ↓

Is H output to IC2 pin 24 or 25 for 7 seconds when the OPEN/CLOSE key is pressed?IC91 is defective. Replace it.

No → Check the wiring of the IC2 pins 24 and 25, IC91 pins 1 and 3.

OK ↓

IC2 defective.

Yes ↓

Is 4V output between IC91 pins 3 and 7 during operation stated above?

No → Check the periphery of IC91.

OK ↓

IC91 defective.

Yes ↓

Check the loading motor (M1) and the loading mechanism.

• The CD function will not work.

The CD operating keys don't work.

Yes ↓

Check the CD, DSP, power supply, and 16.93 MHz clock, and reset terminal.

Yes ↓

Check the waveform of SCK, SO (DATA) and SI (COMM).

Yes ↓

See if the pick-up is in the pick-up in PICKUP IN SW position.

Yes ↓

If the items mentioned above are OK, check the main microcomputer IC801.

• The CD operating keys work.

Check the Focus - HF system.

Playback can be performed without a disc.

Yes ↓

Does the pick-up move up and down twice?

Yes → Focus search OK

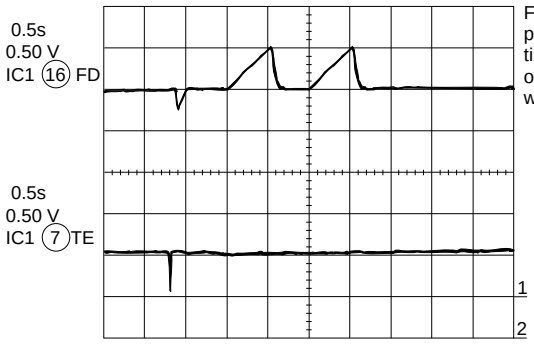
No ↓

Does the output waveform of IC1(16)(FD) match that shown in Fig. 39?

Yes → Check the area around IC5-CNP2.

No ↓

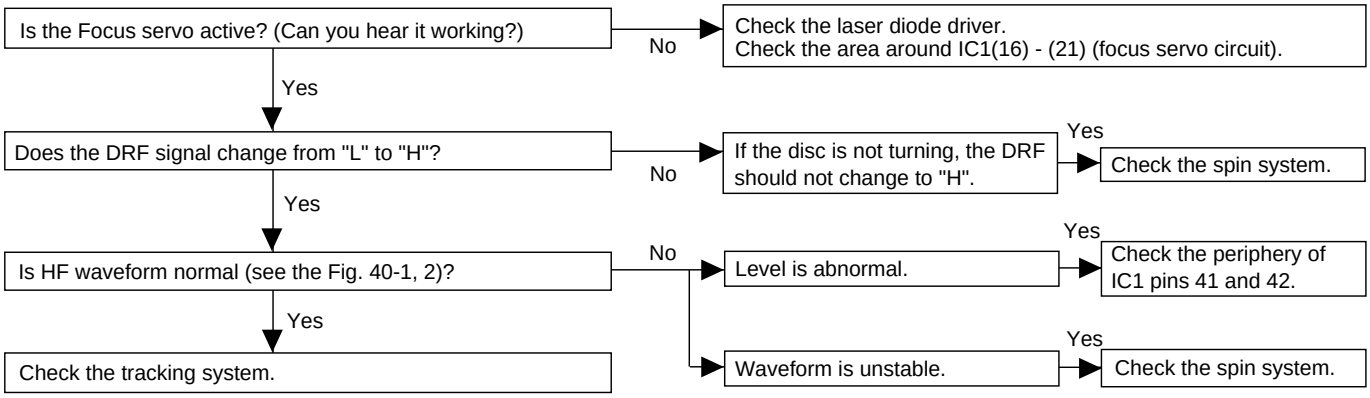
Check the IC1(50)(CLK) line, 4MHz.
Check the microcomputer data on pins (51)(CL), (52)(DAT) and (53)CE.



Focus search is performed two times when play operation is done without disc.

Figure 39

• Playback can only be performed when a disc is loaded.


Is the Focus servo active? (Can you hear it working?)
No
Check the laser diode driver.
Check the area around IC1(16) - (21) (focus servo circuit).
Yes
Does the DRF signal change from "L" to "H"?
No
If the disc is not turning, the DRF should not change to "H".
Yes
Check the spin system.
Yes
Is HF waveform normal (see the Fig. 40-1, 2)?
No
Level is abnormal.
Yes
Check the periphery of IC1 pins 41 and 42.
Yes
Waveform is unstable.
Yes
Check the spin system.
Yes
Check the tracking system.

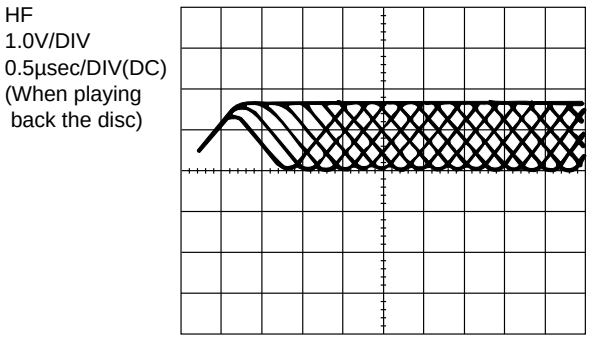


Figure 40-1

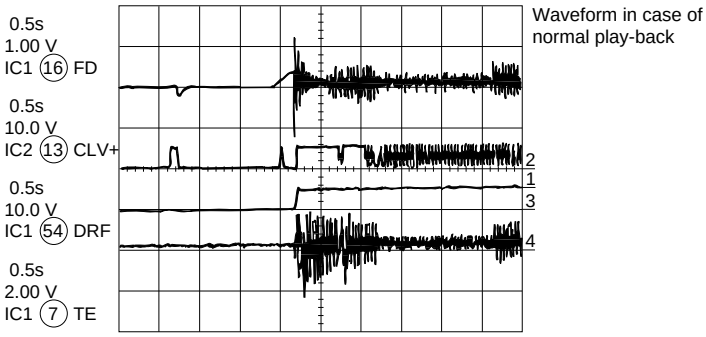
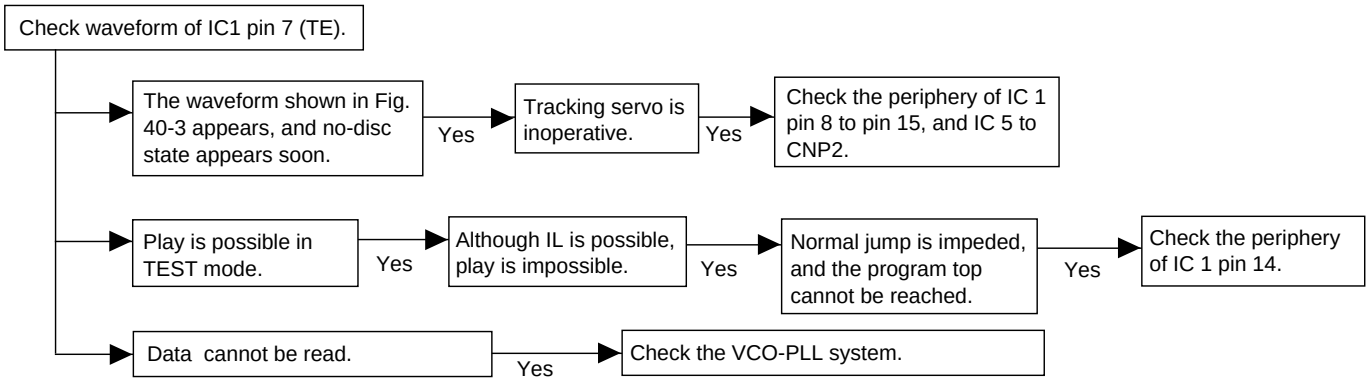


Figure 40-2

• Check the tracking system.


Check waveform of IC1 pin 7 (TE).
The waveform shown in Fig. 40-3 appears, and no-disc state appears soon.
Yes
Tracking servo is inoperative.
Yes
Check the periphery of IC 1 pin 8 to pin 15, and IC 5 to CNP2.
Play is possible in TEST mode.
Yes
Although IL is possible, play is impossible.
Yes
Normal jump is impeded, and the program top cannot be reached.
Yes
Check the periphery of IC 1 pin 14.
Data cannot be read.
Yes
Check the VCO-PLL system.

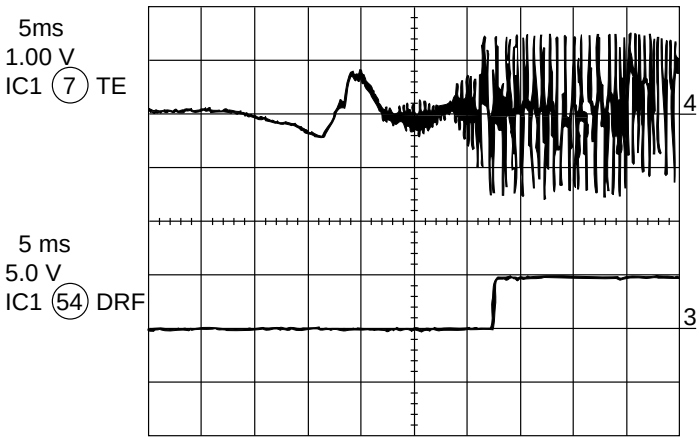


Figure 40-3

• Checking the spin system.

Play operation is performed without disc.

Yes

The turntable rotates a little. — Yes → The spin driver circuit is normal.

No

The turntable fails to rotate or rotates at high speed. — Yes → Check the periphery of IC1 pins 23 to 27, pin 39, and pin 40, IC2 pin 12 and pin 13, IC5 to CNP3.

• Checking the VCO-PLL system

Play operation is performed when disc exits.

Yes

Although HF waveform is normal, TOC data cannot be read. — Yes → Check PDO waveform (Fig. 41).

Abnormal

Check the IC1 pins 43 and 44, IC2 pins 3, 5, 7, 10, and 11.

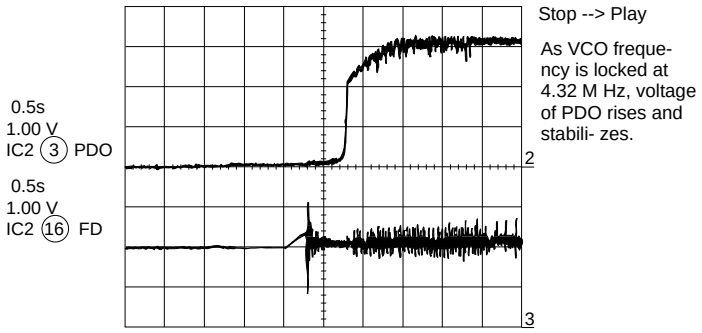


Figure 41

• Although HF waveform is normal and the time indication is normal, no sound is emitted.

Check IC 2 pin 48 (EFLG). — No → Usually, the number of pulses of flawless disc is 100 pulses/sec or less.

Yes

Check IC2 pins 37, 40.

Abnomal

Check IC 501 and POWER AMP IC 901.

FUNCTION TABLE OF IC

IC2 VHiLC78623E-1:Servo/Signal Control(LC78623E) (1/2)

Pin No.	Terminal Name	Input/Output	Function		
1	DEFI	Input	Input terminal of defect detection signal (DEF). (Connected to OV when not used.)		
2	TAI	Input	For PLL	Input terminal for test. Pull-down resistor is integrated. Surely connected to 0V.	
3	PDO	Output		Output terminal of phase comparison for external VCO control.	
4	VVSS	—		Ground terminal for integrated VCO. Surely connected to 0V.	
5	ISET	Input		Resistance connection terminal for current adjustment of PDO output.	
6	VVDD	—		Power terminal for integrated VCO.	
7	FR	Input		VCO frequency range adjustment.	
8	VSS	—	Ground terminal of digital system. Surely connected to 0V.		
9	EFMO	Output	For slice level control	EFM signal output terminal.	
10	EFMIN	Input		EFM signal input terminal.	
11	TEST2	Input	Input terminal for test. Pull-down resistor is integrated. Surely connected to 0V.		
12	CLV+	Outout	Output for disk motor control. 3 values can be output with the commands.		
13	CLV-	Output	Output for disk motor control. 3 values can be output with the commands.		
14	V/P	Output	Monitor output terminal for automatic switch of rough servo/phase control. "H" for rough servo, and "L" for phase servo.		
15	HFL	Intput	Input terminal of track detection signal. Schmit input.		
16	TES	Input	Input terminal of tracking error signal. Schmit input.		
17	TOFF	Output	Tracking OFF output terminal.		
18	TGL	Output	Output terminal for switch of tracking gain "L" increases the gain.		
19	JP+	Output	Output for track jump control. 3 values can be output with the commands.		
20	JP-	Output	Output for track jump control. 3 values can be output with the commands.		
21*	PCK	Output	Clock monitor terminal for EFM data replay. 4,3218MHz as the phase clock.		
22*	FSEQ	Output	Output terminal synchronous signal detection. "H" is output when synchronous signal detected by EFM signal matches synchronous signal internally generated.		
23	VDD	—	Power terminal of digital system.		
24	CONT1	Input/Output	General purpose input/output terminal 1	Controlled with serial data command from micro computer. When not used, set it as the input terminal and open it by connecting to 0V, or set it as the output terminal and open it.	
25	CONT2	Input/Output	General purpose input/output terminal 2		
26	CONT3	Input/Output	General purpose input/output terminal 3		
27	CONT4	Input/Output	General purpose input/output terminal 4		
28*	CONT5	Input/Output	General purpose input/output terminal 5		
29*	EMPH	Output	Difference monitor terminal At "H", deemphasis disk is being replayed.		
30*	C2F	Output	C2 flag output terminal.		
31*	DOUT	Output	Output terminal of digital OUTPUT. (EIAJ format)		
32*	TEST3	Input	Input terminal for test. Pull-down resistor is integrated. Surely connected to 0V.		
33	TEST4	Input	Input terminal for test. Pull-down resistor is integrated. Surely connected to 0V.		
34*	N.C.	—	Terminal not used. Open during operation.		
35*	MUTEL	Output	L channel 1 bit DAC	Mute output terminal for L channel.	
36	LVDD	—		Power terminal for L channel.	
37	LCHO	Output		L channel output terminal.	
38	LVSS	—		Ground terminal for L channel Surely connected to 0V.	
39	RVSS	—	R channel 1 bit DAC	Ground terminal for R channel Surely connected to 0V.	
40	RCH0	Output		R channel output terminal.	
41	RVDD	—		Power terminal for R channel.	
42*	MUTER	Output		Mute output terminal for R channel.	
43	XVDD	—	Power terminal for quartz oscillation.		
44	XOUT	Output	Ground terminal of 16.9344 MHz quartz oscillator.		
45	XIN	Input	Ground terminal of 16.9344 MHz quartz oscillator.		
46	XVSS	—	Ground terminal for quartz oscillation. Surely connected to 0V.		
47*	SBSY	Output	Output terminal of synchronous signal of subcode block.		
48*	EFLG	Output	Correction monitor terminal of C1, C2, single and double.		

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC2 VHiLC78623E-1:Servo/Signal Control(LC78623E) (2/2)

Pin No.	Terminal Name	Input/Output	Function
49*	PW	Output	Output terminal of subcodes P, A, R, S, T, U and W.
50*	SFSY	Output	Output terminal of synchronous signal of subcode frame. It drops when subcode stands by.
51	SBCK	Input	Clock input terminal to read subcode. Schmit input (Connected to 0V when not used.)
52*	FSX	Output	Output terminal of synchronous signal of 7.35kHz divided from quartz oscillation.
53	WRQ	Output	Output terminal to stand by output of subcode Q.
54	RWC	Input	Input terminal of read/write. Schmit input.
55	SQOUT	Output	Output terminal of subcode Q.
56	COIN	Input	Command input terminal from microcomputer.
57	$\overline{\text{CQCK}}$	Input	Clock input terminal to fetch command input, or pick up subcode from SQOUT. Schmit input
58	$\overline{\text{RES}}$	Input	Reset input terminal of LC78622. When turning on power, set it at "L".
59*	TST11	Output	Output terminal for test. Used in the open state ("L" output as ordinary).
60*	16M	Output	Output terminal of 16.9344Hz.
61	4.2M	Output	Output terminal of 4.2336MHz.
62	TEST5	Input	Input terminal for test Pull-down resistor is integrated. Surely connected to 0V.
63	$\overline{\text{CS}}$	Input	Chip selection input terminal. Pull-down resistor is integrated. Connected to 0when not controlled.
64	TEST1	Input	Input terminal for test Pull-down resistor is integrated. Surely connected to 0V.

Note: The same potential must be supplied to the power terminals (VDD, VVDD, LVDD, RVDD, XVDD).

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

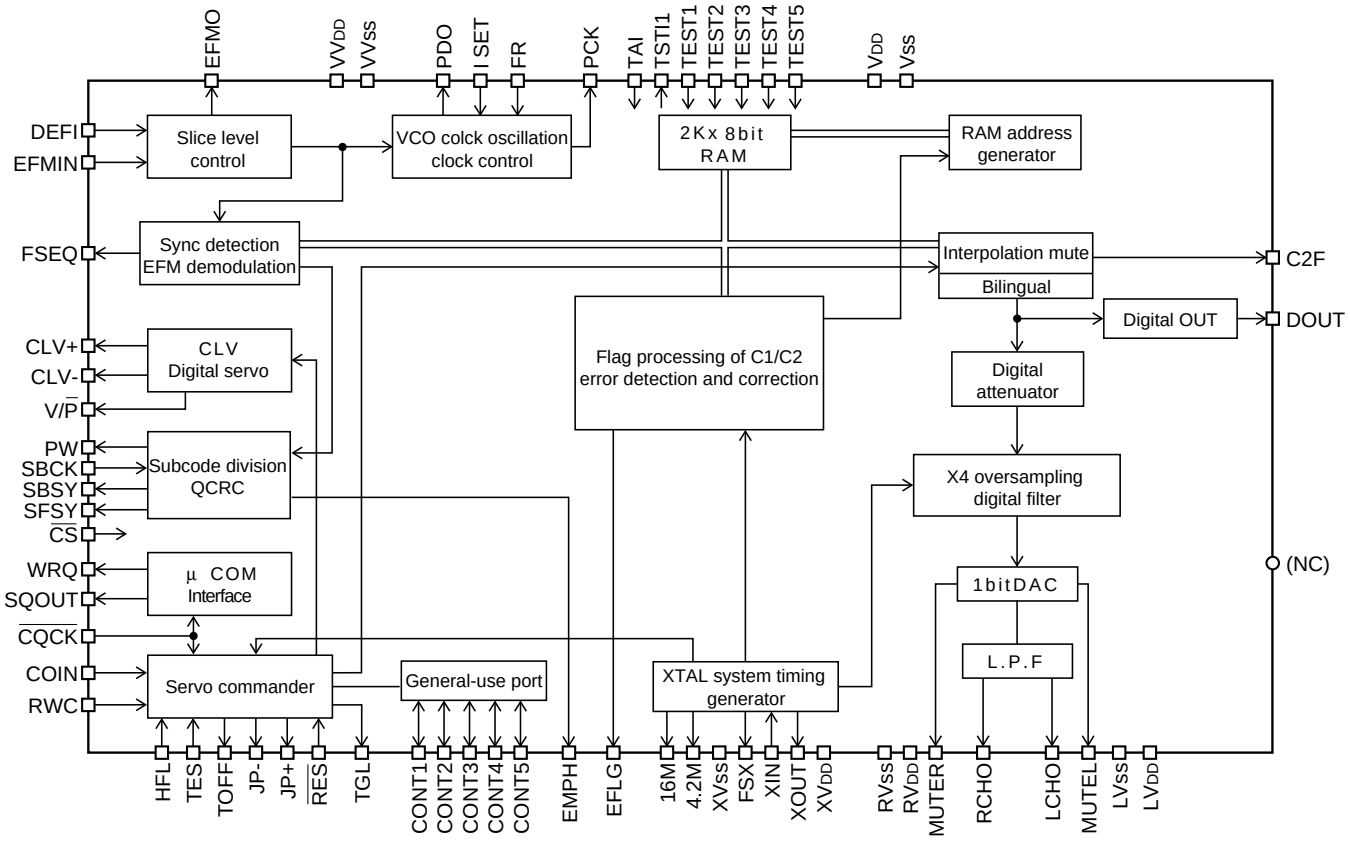


Figure 43 BLOCK DIAGRAM OF IC

IC1 VHiLA9240M/-1:Servo Amp. (LA9240M) (1/2)

Pin No.	Port Name	Function
1	FIN2	Connection pin for photodiode of pickup. RF signal is generated through addition with FIN pin, and FE signal is generated through subtraction.
2	FIN1	Connection pin for photodiode of pickup.
3	E	Connection pin for photodiode of pickup. TE signal is generated through subtraction with F pin.
4	F	Connection pin for photodiode of pickup.
5	TB	Pin for input of DC component of TE signal.
6	TE-	Pin to connect gain setting resistor of TE signal to TE signal.
7	TE	TE signal output pin.
8	TESI	TES (Track error sense) comparator input pin. TE signal is band-passed and input.
9	SCI	Input pin for shock detection.
10	TH	Pin to set time constant of tracking gain.
11*	TA	TA amplifier output pin.
12	TD-	Pin to compose tracking phase compensation constant between TD and VR pins.
13	TD	Pin to set tracking phase compensation.
14	JP	Pin to set amplitude of tracking jump signal (kick pulse).
15	TO	Tracking control signal output pin.
16	FD	Focusing control signal output pin.
17	FD-	Pin to compose focusing phase compensation constant between FD and FA pins.
18	FA	Pin to compose focusing phase compensation constant between FD-/FA-pins.
19	FA-	Pin to compose focusing phase compensation constant between FA and FE pins.
20	FE	Output pin of FE signal.
21	FE-	Pin to connect gain setting resistor of FE signal across TE pin.
22	AGND	GND for analog signal.
23	SP	Single end output for CV+ and CV- pin input.
24	SPI	Spindle amplifier input.
25	SPG	Pin to connect gain setting resistor in the 12cm mode of spindle.
26	SP-	Pin to connect spindle phase compensation constant together with SPD pin.
27	SPD	Spindle control signal output pin.
28	SLEQ	Pin to connect thread phase compensation constant.
29	SLD	Thread control signal output pin.
30	SL-	Input pin of thread feed signal from micro computer.
31	SL+	Input pin of thread feed signal from micro computer.
32	JP-	Input pin of tracking jump signal from DSP.
33	JP+	Input pin of tracking jump signal from DSP.
34	TGL	Input pin of tracking gain control signal from DSP. TGL = Gain low at "H"
35	TOFF	Input pin of tracking off control signal from DSP. TOFF = Off at "H"
36	TES	Output pin of TES signal to DSP.
37	HFL	(HIGH FREQUENCY LEVEL) is used to judge whether main beam is positioned on the bit or on the mirror.
38	SLOF	Thread servo off control input pin.
39	CV-	Pin to input CLV error signal from DSP.
40	CV+	Pin to input CLV error signal from DSP.
41	RFSM	RF output pin.
42	RFS-	Pin to set gain of RF and set 3T compensation constant together with RFSM pin.
43	SLC	(SLICE LEVEL CONTROL) is the output pin to control of the level of the data slice with RF waveform DSP.
44	SLI	Input pin to control the level of data slice with DSP.
45	DGND	GND pin in the digital system.
46	FSC	Output pin for focus search smoothening capacitor.
47	TBC	(Tracking Balance Control) Pin to set EF balance variable range.
48*	NC	No connect.
49	DEF	Defect detection output pin of disk.
50	CLK	Reference clock input pin. 4.23MHz of DSP is input.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC1 VHiLA9240M/-1:Servo Amp. (LA9240M) (2/2)

Pin No.	Port Name	Function
51	CL	Micro computer command clock input pin.
52	DAT	Micro computer command data input pin.
53	CE	Micro computer command chip enable input pin.
54	DRF	(DETECT RF) RF level detection output.
55	FSS	(Focus Serch Select) Pin to switch focus search mode. (± search/+ search for reference voltage)
56	VCC2	VCC pin for servo system and digital system.
57	REFI	Pin to connect pass control for reference voltage.
58	VR	Reference voltage output pin.
59	LF2	Pin to set defect detection time constant of disk.
60	PH1	Pin to connect capacitor for peak hold of RF signal.
61	BH1	Pin to connect capacitor for bottom hold of RF signal.
62	LDD	APC circuit output pin.
63	LDS	APC circuit output pin.
64	VCC1	RF system VCC pin.

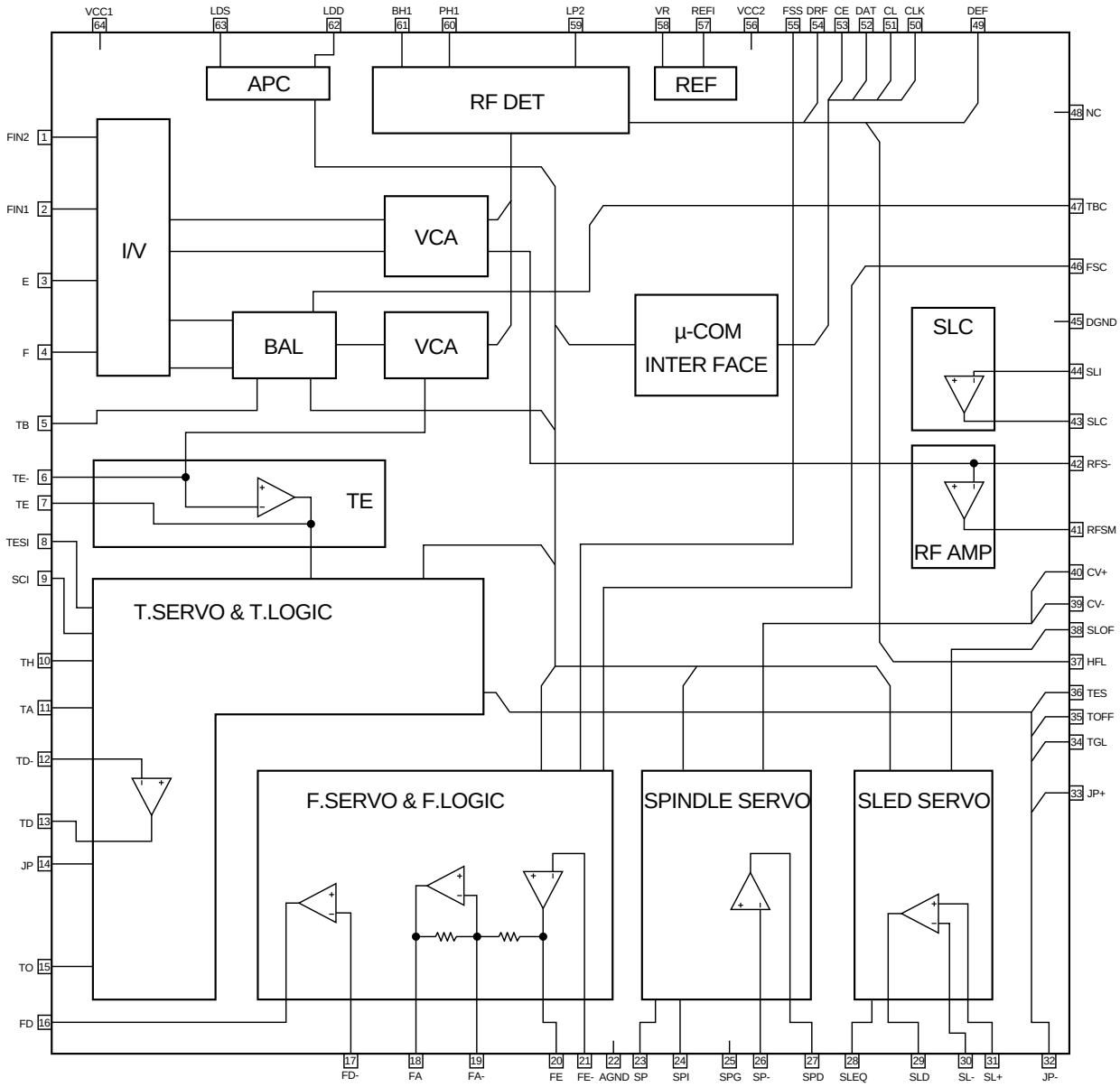


Figure 45 BLOCK DIAGRAM OF IC

IC601 RH-iX0171AWZZ:System Microcomputer (IX0171AW) (1/2)

Pin No.	Terminal Name	Input/Output	Function
1*	———	Output	———
2	REC/PB	—	Record/Playback selection signal
3*	———	Output	———
4	CD MUT	Output	CD MUT signal
5	CD RES	Output	CD DSP RESET signal
6	CD SL-	Output	Slide return signal
7	CD SL+	Output	Slide feed signal
8	VDD	—	Power connection terminal
9	CD CQCK	Output	CD IC control signal
10	CD COIN	Output	CD IC control signal
11	CD SQOUT	Input	CD IC control signal
12	CD WRQ	Input	CD IC control signal
13	CD RWC	Output	CD IC control signal
14	SCK	Input	Main µCOM (RH-iX0170AWZZ) control signal
15	SO	Output	Main µCOM (RH-iX0170AWZZ) control signal
16	SI	Input	Main µCOM (RH-iX0170AWZZ) control signal
17	RESET	Input	Main µCOM (RH-iX0170AWZZ) control signal
18	STROBE	Input	Main µCOM (RH-iX0170AWZZ) control signal
19	CD PU-IN SW	Input	Pickup position detection
20	AVSS	—	To be connected to GND
21	CD DRF	Input	CD RF level detection input H: When RF level is H
22	T1 RUN	Input	Tape 1: Rotation pulse input
23	T2 RUN	Input	Tape 2: Rotation pulse input
24	SPEANA 5	Input	63Hz BPF spectrum analyzer input
25	SPEANA 4	Input	250Hz BPF spectrum analyzer input
26	SPEANA 3	Input	1kHz BPF spectrum analyzer input
27	SPEANA 2	Input	4kHz BPF spectrum analyzer input
28	SPEANA 1	Input	16kHz BPF spectrum analyzer input
29	AVDD	—	A/D converter analog positive power
30	AVREF	—	A/D converter reference power
31	TAPE CUM SW	Input	Tape mechanism cam SW input terminal
32*	———	—	No connected
33	VSS	—	To be connected to GND
34*	X1	—	Main clock terminal, not used
35*	X2	—	Main clock terminal, not used
36*	LINE MUT	Output	Line mute output, not used
37*	SURROUND MUT	Output	Surround mute output
38*	CENTER MUT	Output	Center SP output mute output
39	SYSTEM MUT	Output	System mute output
40	MIC	Input	Mic input terminal (for detection)
41*	EN	Output	DOLBY PRO logic IC control signal
42*	DATA	Output	DOLBY PRO logic IC control signal
43*	CLK	Output	DOLBY PRO logic IC control signal
44	SP DET	Input	Speaker output error detection input Occurrence of error: L
45	POWER	Output	Set power control output Power ON: H
46	RELAY	Output	Speaker output relay control output Relay ON: H
47*	TAPE TS CrO SW	Input	Tape mechanism 2 CrO_2 detection input CrO_2: H
48	VSS	Input	Digital GND terminal
49	TAPE F/R SPEED	Output	Tape feed/return
50	TAPE SOL	Output	Tape mechanism solenoid control output Attraction: L
51	TAPE MOTOR	Output	Tape mechanism motor control output

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC601 RH-iX0171AWZZ:System Microcomputer (IX0171AW) (2/2)

Pin No.	Terminal Name	Input/Output	Function
52	VDD	—	Positive power supply
53	CD O/C SW	Input	CD open-close switch input
54	DISC No. SW	Input	CD turntable position detection input
55	CD U/D SW	Input	CD mechanism UP/DOWN chucking detection input
56*	T1 CrO SW	Input	Tape 1 CrO_2 detection SW input
57	SRS INH	Output	SRS (surround) position selection output
58	SRS B	Output	SRS (surround) position selection output
59	SRS A	Output	SRS (surround) position selection output
60	SRS 3D	Output	SRS (surround) position selection output
61	SRS PASS	Output	SRS (surround) position selection output
62	SPAN 9K/10K	Input	Tuner span selector 9 kHz/10 kHz selection input
63	DOLBY	Input	DOLBY detection input, not applied in this machine
64	SRS	Input	SRS detection input, not applied in this machine
65	BALANCE	Input	BALANCE detection input, not applied in this machine
66	4SP	Input	4SP detection input, not applied in this machine
67	TAPE A-FP SW	Input	Tape A side miserase preventing SW input
68	TAPE B-FP SW	Input	Tape B side miserase preventing SW input
69	TAPE PB MUT	Output	Tape playback mute output
70	TAPE T1/T2	Output	Tape 1/2 selection
71	VLOAD	—	To be connected to GND
72	TAPE BIAS	Output	Tape bias circuit selection
73*	———	—	Not used
74*	———	—	Not used
75*	TAPE BEET CUT	Output	Beat cancel signal control output
76	TAPE HI SPEED	Output	Tape mechanism High-Low speed selection
77*	———	—	Not used
78*	———	—	Not used
79*	TAPE PB EQ	Output	Tape circuit playback Eq selection
80	TAPE REC MUT	Output	Tape circuit record muting output

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

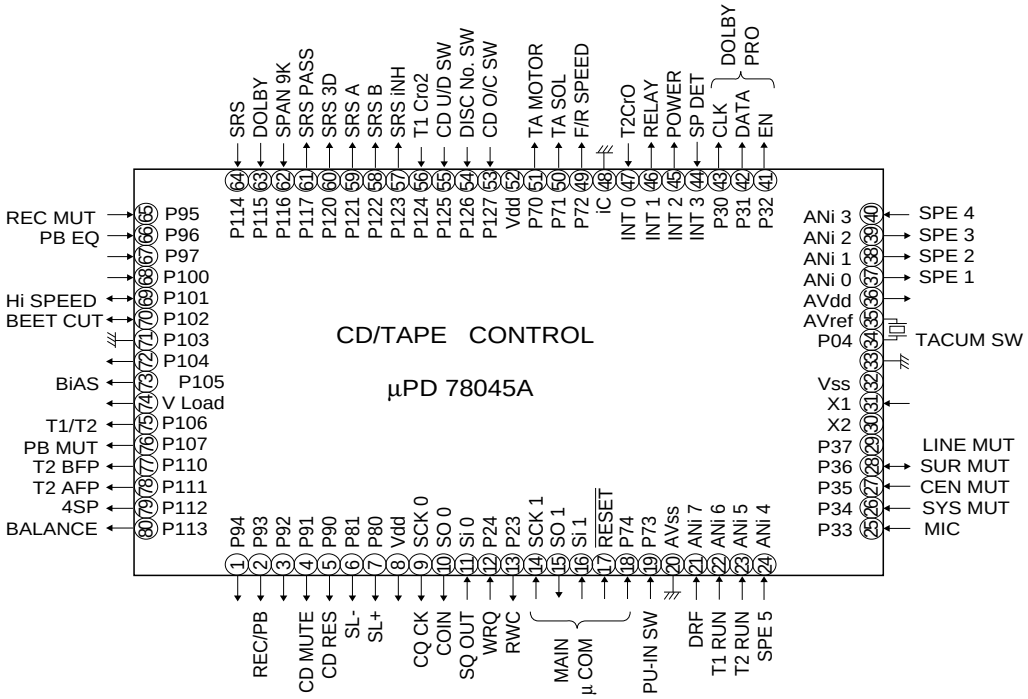


Figure 47 BLOCK DIAGRAM OF IC

IC701 RH-iX0170AWZZ:System Microcomputer (IX0170AW) (1/2)

Pin No.	Port Name	Terminal Name	Input/Output	Function
1-5	P94/FIP6-P90/FIP2	G06-G02	Output	FL display tube grid drive
6,7	P81/FIP1,P80/FIP0	G01,G00	Output	FL display tube grid drive
8	VDD	VDD	—	Positive power supply
9	P27/SCK0	C^2B CLK	Output	C^2B serial clock output
10	P26/S00/SB1	C^2B DO	Output	C^2B serial data output
11	P25/SI0/SB0	C^2B DI	Input	C^2B serial data input
12	P24/BUSY	C^2B CE	Output	C^2B serial CE output
13	P23/STB	SUB STB	Output	Serial strobe output for CD/TAPE microcomputer
14	P22/SCK1	SUB SCK	Output	Serial clock output for CD/TAPE microcomputer
15	P21/SO1	SUB SO	Output	Serial data output for CD/TAPE microcomputer
16	P20/SI1	SUB SI	Input	Serial strobe input for CD/TAPE microcomputer
17	RESET	RESET	Input	Reset input
18	P74	SUB RES	Output	Reset output for CD/TAPE microcomputer
19	P73	TUN MUTE	Output	Tuner TUN MUT output
20	AVSS	AVSS	—	Analog power supply for A/D converter
21	P17/ANI7	TUN SD	Input	Tuner station detection input
22	P16/ANI6	TUN SM	Input	Tuner signal meter input
23	P15/ANI5	KEY IN5	Input	Key input 37-45
24	P14/ANI4	KEY IN4	Input	Key input 28-36
25	P13/ANI3	KEY IN3	Input	Key input 19-27
26	P12/ANI2	KEY IN2	Input	Key input 10-18
27	P11/ANI1	KEY IN1	Input	Key input 1-9
28	P10/ANI0	ENF IN	Input	Tuner initial setting input
29	AVDD	AVDD	—	Analog positive power supply for A/D converter
30	AVREF	AVREF	—	Reference power supply for A/D converter
31	P04/XT1	VSS	Input	Sub-clock input To be connected to Vss
32*	XT2	N.C	—	Sub-clock output OPEN
33	VSS	VSS	—	GND power
34	X1	X1	Input	Main clock 4.194304 MHz
35	X2	X2	Output	Main clock 4.194304 MHz
36	P37	LED LCK	Output	LED IC serial clock output BU2092 LCK
37	P36/BUZ	LED DATA	Output	LED IC serial data output BU2092 DATA
38	P35/PCL	LED CLK	Output	LED IC serial clock output BU2092CLK
39*	P34/TI2	RDS ID	Input	RDS RDS station detection input
40*	P33/TI1	RDS SYNC	Input	RDS Data sync detection input
41*	P32/TO2	RDS SYR	Output	RDS RAM reset output LC72720 SYR
42	P31/TO1	SYS MUTE	Output	System mute output
43	P30/TO0	POWER	Output	POWER output
44*	P03/INTP3/CI0	————	Output	No Use
45*	P02/INTP2	————	Output	No Use
46	P01/INTP1	SYS STOP	Input	Power failure input
47	P00/INTP0/TI0	REM IN	Input	Remote Control Input
48	IC	VSS	—	Connect with GND
49*	P72	————	Output	No Use
50*	P71	————	Output	No Use
51*	P70	————	Output	No Use
52	VDD	VDD	—	Positive power supply
53*	P127/FIP33	————	—	No Use
54-60	P126/FIP32-P120/FIP26	S21-S15	Output	FL display tube segment drive
61-68	P117/FIP25-P110/FIP18	S14-S07	Output	FL display tube segment drive
69,70	P107/FIP17,P106/FIP16	S06,S05	Output	FL display tube segment drive

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC701 RH-iX0170AWZZ:System Microcomputer (IX0170AW) (2/2)

Pin No.	Port Name	Terminal Name	Input/Output	Function
71	VLOAD	VLOAD	—	Negative power supply for FL drive To be connected to -30V
72-76	P105/FIP15-P101/FIP11	S04-S00	Output	FL display tube segment drive
77	P100/FIP10	G10	Output	FL display tube grid drive
78-80	P97/FIP9-P95/FIP7	G09-G07	Output	FL display tube grid drive

IC501 VHiLC75396E-1:Audio Processor (LC75396E)

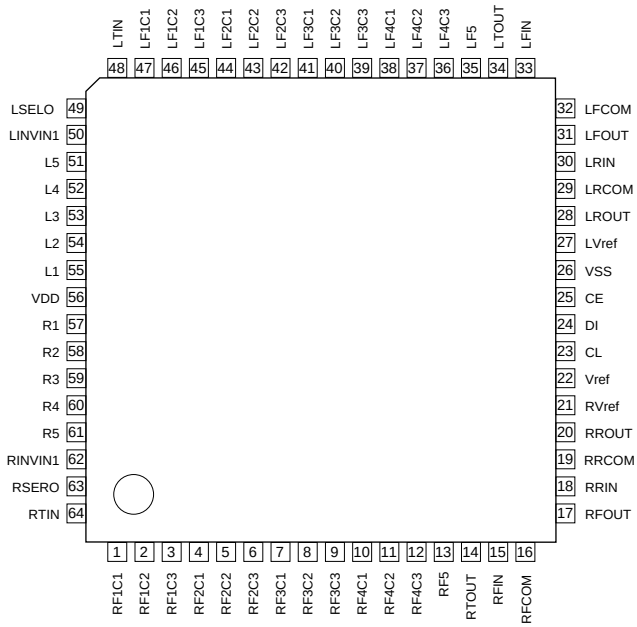


Figure 49 BLOCK DIAGRAM OF IC

IC501 VHiLC75396E-1:Audio Processor (LC75396E)

Pin No.	Terminal Name	Function
1-3	RF1C1-RF1C3	Terminal to connect capacitor of filter configuration for equalizer F1 band Connect the capacitor between LF1C1(RF1C1) and LF1C2(RF1C2) between LF1C2 (RF1C2) and LF1C3(RF1C3).
4-6	RF2C1-RF2C3	Terminal to connect capacitor of filter configuration for equalizer F2 band Connect the capacitor between LF2C1(RF2C1) and LF2C2(RF2C2) between LF2C2 (RF2C2) and LF2C3(RF2C3).
7-9	RF3C1-RF3C3	Terminal to connect capacitor of filter configuration for equalizer F3 band Connect the capacitor between LF3C1(RF3C1) and LF3C2(RF3C2) between LF3C2 (RF3C2) and LF3C3(RF3C3).
10-12	RF4C1-RF4C3	Terminal to connect capacitor of filter configuration for equalizer F4 band Connect the capacitor between LF4C1(RF4C1) and LF4C2(RF4C2) between LF4C2 (RF4C2) and LF4C3(RF4C3).
13	RF5	Terminal to connect capacitor of filter configuration for equalizer F5 band Terminal to connect the externally provided capacitor
14	RTOUT	Equalizer output terminal
15	RFIN	Input terminal of Rch front side 4dB step control
16	RFCOM	Common terminal of Rch front side 1dB step control
17	RFOUT	Output terminal of Rch front side control
18*	RRIN	Input terminal of Rch rear side 4dB step control
19	RRCOM	Common terminal of Rch rear side 1dB step control
20	RROUT	Output terminal of Rch rear side control
21	RVREF	Internal analog ground terminal
22	VREF	Connect the capacitor of about several 10 uF between Vref and AVSS (VSS) so as to prevent power supply ripple in the VDD/2 voltage generating section.
23	CL	Terminal to input serial data and clock for control
24	DI	Terminal to input serial data and clock for control
25	CE	Chip enable terminal. Data is written in the internal latch with a timing of changing H to L, and the specific analog switch is actuated. Data transfer is enabled on the H level.
26	VSS	GND
27	LVREF	Internal analog ground terminal
28	LROUT	Output terminal of Lch rear side control
29	LRCOM	Common terminal of Lch rear side 1dB step control
30*	LRIN	Input terminal of Lch rear side 4dB step control
31	LFOUT	Output terminal of Lch front side control
32	LFCOM	Common terminal of Lch front side 1dB step control
33	LFIN	Input terminal of Lch front side 4dB step control
34	LTOUT	Equalizer output terminal
35	LF5	Terminal to connect capacitor of filter configuration for equalizer F5 band Terminal to connect the externally provided capacitor
36-38	LF4C3-LF4C1	Terminal to connect capacitor of filter configuration for equalizer F4 band Connect the capacitor between LF4C1(RF4C1) and LF4C2(RF4C2) between LF4C2 (RF4C2) and LF4C3(RF4C3).
39-41	LF3C3-LF3C1	Terminal to connect capacitor of filter configuration for equalizer F3 band Connect the capacitor between LF3C1(RF3C1) and LF3C2(RF3C2) between LF3C2 (RF3C2) and LF3C3(RF3C3).
42-44	LF2C3-LF2C1	Terminal to connect capacitor of filter configuration for equalizer F2 band Connect the capacitor between LF2C1(RF2C1) and LF2C2(RF2C2) between LF2C2 (RF2C2) and LF2C3(RF2C3).
45-47	LF1C3-LF1C1	Terminal to connect capacitor of filter configuration for equalizer F1 band Connect the capacitor between LF1C1(RF1C1) and LF1C2(RF1C2) between LF1C2 (RF1C2) and LF1C3(RF1C3).
48	LTIN	Equalizer input terminal
49	LSELO	Input selector output terminal
50	LINVIN1	Operational amplifier reverse input terminal for input gain setting
51-55	L5-L1	Input signal terminal
56	VDD	Power terminal
57-61	R1-R5	Input signal terminal
62	RINVIN1	Operational amplifier reverse input terminal for input gain setting
63	RSELO	Input selector output terminal
64	RTIN	Equalizer input terminal

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

FL701 : VVKBJ549GK/-1 FL Display

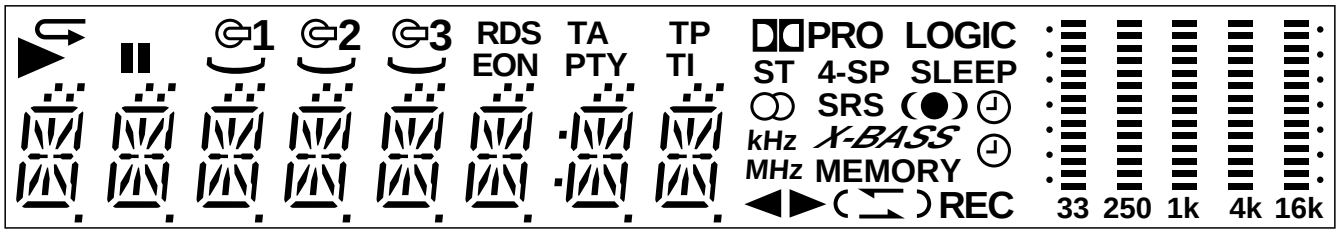


Figure 51 FL DISPLAY

— M E M O —

SHARP PARTS GUIDE

MODEL CD-C440W
CP-C440W

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following information.

1. MODEL NUMBER
2. REF. No.
3. PART NO.
4. DESCRIPTION

★ MARK: SPARE PARTS-DELIVERY SECTION

For U.S.A. only

Contact your nearest SHARP Parts Distributor to order.

For location of SHARP Parts Distributor,
Please call Toll-Free;
1-800-BE-SHARP

Explanation of capacitors/resistors parts codes

Capacitors

VCC ..... Ceramic type
VCK..... Ceramic type
VCT..... Semiconductor type
VC • • MF ..... Cylindrical type (without lead wire)
VC • • MN..... Cylindrical type (without lead wire)
VC • • TV..... Square type (without lead wire)
VC • • TQ ..... Square type (without lead wire)
VC • • CY ..... Square type (without lead wire)
VC • • CZ ..... Square type (without lead wire)
VC • • • • • • • • • J .. The 13th character represents capacity difference.
("J" ±5%, "K" ±10%, "M" ±20%, "N" ±30%,
"C" ±0.25 pF, "D" ±0.5 pF, "Z" +80-20%.)

If there are no indications for the electrolytic capacitors, error is ±20%.

Resistors

VRD ..... Carbon-film type
VRS..... Carbon-film type
VRN ..... Metal-film type
VR • • MF ..... Cylindrical type (without lead wire)
VR • • MN..... Cylindrical type (without lead wire)
VR • • TV..... Square type (without lead wire)
VR • • TQ ..... Square type (without lead wire)
VR • • CY ..... Square type (without lead wire)
VR • • CZ ..... Square type (without lead wire)
VR • • • • • • • • • J .. The 13th character represents error.
("J" ±5%, "F" ±1%, "D" ±0.5%.)

If there are no indications for other parts, the resistors are ±5% carbon-film type.

NOTE:
Parts marked with "⚠" are important for maintaining the safety of the set.
Be sure to replace parts with specified ones for maintaining the safety and performance of the set.

NO.	PART CODE	★	PRICE RANK	DESCRIPTION

CD-C440W

INTEGRATED CIRCUITS

IC1	VHILA9240M/-1	J	AV	Servo Amp.,LA9240M
IC2	VHILC78623E-1	J	AX	Servo/Signal Control,LC78623E
IC5	VHIM56748FP-1	J	AR	Focus/Tracking/Spin/Slide Driver,M56748FP
IC91	VHITA7291S/-1	J	AH	Loading Motor Driver, TA7291S
IC101	VHIAN7345K/-1	J	AM	Playback and Record/ Playback Amp.,AN7345K
IC302	VHILC72131/-1	J	AP	PLL (Tuner),LC72131
IC303	VHILA1832//-1	J	AR	FM IF Det./FM Mpx./ AM IF, LA1832
IC451	VHISRS5250S-1	J	BL	SRS,SRS5250S
IC453	VHIBU4052BC-1	J	AH	Function Serector,BU4052BC
IC501	VHILC75396E-1	J	AT	Audio Processor,LC75396E
IC502~504	VHIBA4558//-1	J	AD	Ope Amp.,BA4558
IC601	RH-IX0171AWZZ	J	AV	System Microcomputer, IX0171AW
IC651	VHIBA4558//-1	J	AD	Ope Amp.,BA4558
IC701	RH-IX0170AWZZ	J	AW	System Microcomputer, IX0170AW
IC702	VHIBU2092F/-1	J	AM	Input/Output Expander, BU2092F
IC901	VHISTK48802-1	J	BA	Power Amp.,STK48802

TRANSISTORS

Q1	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q81	VSKTC3203Y/-1	J	AC	Silicon,NPN,KTC3203 Y
Q83,84	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q91	VSKTA1271Y/-1	J	AC	Silicon,PNP,KTA1271 Y
Q93	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q94	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
Q103~106	VS2SC1845F/-1	J	AC	Silicon,NPN,2SC1845 F
Q107,108	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q109	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q110,111	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q115,116	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q117,118	VS2SC2878A/-1	J	AE	Silicon,NPN,2SC2878 A
Q119	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q121,122	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q124	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q126	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q128	VS2SC2236-Y-1	J	AB	Silicon,NPN,2SC2236 Y
Q353,354	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q360	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q361	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
Q371	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q458~460	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
Q461	VSKTC3203Y/-1	J	AC	Silicon,NPN,KTC3203 Y
Q463	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
Q466	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
Q467	VSKRA107M//-1	J	AE	Digital,PNP,KRA107 M
Q468,469	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q501,502	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q701	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q704	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q705,706	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q801	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q821	VS2SD2012//-1	J	AD	Silicon,NPN,2SD2012
Q822	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q823	VS2SD2012//-1	J	AD	Silicon,NPN,2SD2012
Q824	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q825	VSKRA107M//-1	J	AE	Digital,PNP,KRA107 M
Q826	VS2SD2012//-1	J	AD	Silicon,NPN,2SD2012
Q827	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q828	VS2SD468-C/-1	J	AD	Silicon,NPN,2SD468 C
Q829	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
Q903,904	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q996	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q997~999	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
QM01	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
QM02	VSKTA1273Y/-1	J	AE	Silicon,PNP,KTA1273 Y
QM03	VSKTA1271Y/-1	J	AC	Silicon,PNP,KTA1271 Y
QM04	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
QM05	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION

DIODES

D2	VHD1SS133//-1	J	AA	Silicon,1SS133
D5,6	VHDRL104A//-1	J	AB	Silicon,RL104A
D7	VHDRL104A//-1	J	AB	Silicon,RL104A
D8,9	VHD1SS133//-1	J	AA	Silicon,1SS133
D91	VHD1SS133//-1	J	AA	Silicon,1SS133
D301~304	VHD1SS119//-1	J	AA	Silicon,1SS119
D351~353	VHD1SS119//-1	J	AA	Silicon,1SS119
D451	VHD1SS133//-1	J	AA	Silicon,1SS133
D501,502	VHD1SS133//-1	J	AA	Silicon,1SS133
D551~557	VHD1SS133//-1	J	AA	Silicon,1SS133
D560,561	VHD1SS133//-1	J	AA	Silicon,1SS133
D601,602	VHD1SS133//-1	J	AA	Silicon,1SS133
D705~709	VHD1SS133//-1	J	AA	Silicon,1SS133
D801	VHDS4VB20//-1	J	AG	Rectifier,S4VB20
D802~809	VHDRL104A//-1	J	AB	Silicon,RL104A
D817~825	VHD1SS133//-1	J	AA	Silicon,1SS133
D826,827	VHDRL104A//-1	J	AB	Silicon,RL104A
D828~831	VHD1SS133//-1	J	AA	Silicon,1SS133
D901	VHD1SS133//-1	J	AA	Silicon,1SS133
D902	VHD1SS133//-1	J	AA	Silicon,1SS133
D998,999	VHD1SS133//-1	J	AA	Silicon,1SS133
DM02,03	VHD1SS133//-1	J	AA	Silicon,1SS133
LED701~705	VHP5N4GTN52-1	J	AD	LED,Green,5N4GTN52
LED706~711	VHP5N4YTN52-1	J	AC	LED,Orange,5N4YTN52
LED714~719	VHPLMKD515B-1	J	AE	LED,Green,LMKD515B
PHM1	VHPI31535CD-1	J	AG	Phote Interrupter
VD301	VHCKV1236Z23F	J	AS	Variable Capacitance, KV1236Z23F
ZD81	VHEMTZJ5R6B-1	J	AD	Zener,5.6V,MTZJ5.6B
ZD351	VHEMTZJ5R1B-1	J	AC	Zener,5.1V,MTZJ5.1B
ZD352	VHEMTZJ3R9B-1	J	AC	Zener,3.9V,MTZJ3.9B
ZD551	VHEMTZJ6R2C-1	J	AC	Zener,6.2V,MTZJ6.2C
ZD701	VHEMTZJ3R9B-1	J	AC	Zener,3.9V,MTZJ3.9B
ZD801	VHEMTZJ330C-1	J	AB	Zener,33V,MTZJ33V
ZD802	VHEMTZJ5R6B-1	J	AD	Zener,5.6V,MTZJ5.6B
ZD821	VHEMTZJ8R2C-1	J	AB	Zener,8.2V,MTZJ8.2C
ZD822	VHEMTZJ130C-1	J	AB	Zener,13V,MTZJ13C
ZD823	VHEMTZJ6R2C-1	J	AC	Zener,6.2V,MTZJ6.2C
ZD901	VHEMTZJ150A-1	J	AA	Zener,15V,MTZJ15A

FILTERS

CF302	RFILF0124AFZZ	J	AD	FM IF
CF351	RFILF0003AWZZ	J	AK	FM IF
CF352	RFILA0009AWZZ	J	AE	AM IF

TRANSFORMERS

T302	RCILA1064AFZZ	J	AD	MW Antenna
T306	RCILB1074AFZZ	J	AC	MW Oscillation
T351	RCILI0011AWZZ	J	AD	AM IF
⚠T801	RTRNP0127AWZZ	J	BG	Power

COILS

L1	VP-XHR82K0000	J	AC	0.82 µH,Choke
L101,102	VP-MK182K0000	J	AC	1.8 mH,Choke
L103	VP-MK102K0000	J	AB	1 mH,Choke
L104	VP-MK331K0000	J	AB	330 µH,Choke
L342	VP-DH2R2K0000	J	AB	2.2 mmH,Peaking
L351,352	VP-DH101K0000	J	AB	100 µH,Choke
L353	VP-DH102K0000	J	AB	1 mH,Choke
L601	VP-DH101K0000	J	AB	100 µH,Choke
L701	VP-DH101K0000	J	AB	100 µH,Choke
L903	VP-XH2R2K0000	J	AB	2.2 µH,Choke

VARIABLE RESISTORS

VR351	RVR-M0999AFZZ	J	AB	10 kohm (B),Semi-VR [FM Mute Level]
VRM1	RVR-M0556AFZZ	J	AB	3.3 kohms (B),Semi-VR [Tape Speed]

VIBRATORS

X351	92LCRSTL1425A	J	AF	Crystal,456 kHz
X352	RCRSP0002AWZZ	J	AH	Crystal,4.5 MHz
XL1	RCRM-0008AWZZ	J	AF	Ceramic,16.93 MHz
XL701	RCRSP0003AWZZ	J	AH	Crystal,4.19 MHz

CAPACITORS

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
C1	VCTYMN1CY103K	J	AA	0.01 µF,16V
C2	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C3	RC-GZA104AF1H	J	AB	0.1 µF,50V,Electrolytic
C4	VCKYMN1HB102K	J	AA	0.001 µF,50V
C5,6	VCTYPA1CX333K	J	AA	0.033 µF,16V
C7	RC-GZA104AF1H	J	AB	0.1 µF,50V,Electrolytic
C8	VCTYPA1CX683K	J	AA	0.068 µF,16V
C9	VCTYPA1CX473K	J	AA	0.047 µF,16V
C10	VCKYMN1HB181K	J	AA	180 pF,50V
C11	VCTYPA1CX104K	J	AB	0.1 µF,16V
C12	VCKYMN1HB331K	J	AA	330 pF,50V
C13	VCTYPA1CX104K	J	AB	0.1 µF,16V
C14	VCTYMN1CY103K	J	AA	0.01 µF,16V
C15	VCTYMN1CX472K	J	AA	0.0047 µF,16V
C16	VCKYMN1HB102K	J	AA	0.001 µF,50V
C17	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
C18	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C19	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C20	VCTYMN1CX332K	J	AA	0.0033 µF,16V
C21	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C22	VCTYMN1CY103K	J	AA	0.01 µF,16V
C24	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C25	VCTYMN1CY103K	J	AA	0.01 µF,16V
C30	VCCSMN1HL2R2C	J	AB	2.2 pF,50V
C31	VCTYMN1CX272K	J	AA	0.0027 µF,16V
C32	VCCSMN1HL270J	J	AA	27 pF,50V
C33	VCKYMN1HB102K	J	AA	0.001 µF,50V
C34	VCTYPA1CX333K	J	AA	0.033 µF,16V
C35	RC-GZA104AF1H	J	AB	0.1 µF,50V,Electrolytic
C37	RC-GZA227AF1A	J	AB	220 µF,10V,Electrolytic
C38	VCTYMN1CY103K	J	AA	0.01 µF,16V
C39	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
C40	RC-GZA334AF1H	J	AA	0.33 µF,50V,Electrolytic
C41,42	VCKYPA1HF473Z	J	AB	0.047 µF,50V
C43	RC-GZA337AF0J	J	AB	330 µF,6.3V,Electrolytic
C44	RC-GZA107AF1C	J	AB	100 µF,16V,Electrolytic
C45	RC-GZA475AF1H	J	AB	4.7 µF,50V,Electrolytic
C46	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C50	VCTYPA1CX104K	J	AB	0.1 µF,16V
C51	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C52	RC-GZA107AF1C	J	AB	100 µF,16V,Electrolytic
C53	VCKYPA1HB221K	J	AA	220 pF,50V
C54~58	VCKYMN1HB101K	J	AA	100 pF,50V
C67,68	RC-GZA106AF1H	J	AB	10 µF,50V,Electrolytic
C69,70	VCKYMN1HB221K	J	AA	220 pF,50V
C81	RC-GZA107AF1C	J	AB	100 µF,16V,Electrolytic
C82	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C90	VCTYBT1CY103M	J	AA	0.01 µF,16V
C91	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C92	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C94	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C101,102	VCKYMN1HB681K	J	AA	680 pF,50V
C105,106	VCKYMN1HB331K	J	AA	330 pF,50V
C107,108	VCKYMN1HB681K	J	AA	680 pF,50V
C109	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C110	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
C111~114	VCKYMN1HB331K	J	AA	330 pF,50V
C115,116	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C117,118	VCTYPA1CX333K	J	AA	0.033 µF,16V
C119,120	VCKYMN1HB561K	J	AA	560 pF,50V
C121,122	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C123,124	VCTYPA1CX103K	J	AA	0.01 µF,16V
C127	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C128	RC-GZA335AF1H	J	AB	3.3 µF,50V,Electrolytic
C129,130	VCKYMN1HB471K	J	AA	470 pF,50V
C131,132	VCKYMN1HB102K	J	AA	0.001 µF,50V
C133,134	RC-GZA226AF1E	J	AB	22 µF,25V,Electrolytic
C135,136	VCTYPA1CX223K	J	AA	0.022 µF,16V
C137,138	VCTYPA1CX183K	J	AA	0.018 µF,16V
C139,140	VCTYMN1CX332K	J	AA	0.0033 µF,16V
C141,142	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C143,144	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C145	RC-GZA226AF1E	J	AB	22 µF,25V,Electrolytic
C146	RC-GZA227AF1A	J	AB	220 µF,10V,Electrolytic
C147	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C150	VCQPKA2AA822J	J	AA	0.0082 µF,100V,Polypropylene
C151	RC-QZA273AFYJ	J	AB	0.027 µF,50V,Mylar
C152	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C155	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C162	RC-QZA473AFYJ	J	AB	0.047 µF,50V,Mylar
C163	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C301	VCKYMN1HB102K	J	AA	0.001 µF,50V
C321	RC-GZA107AF1C	J	AB	100 µF,16V,Electrolytic
C323	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C330	VCCUMN1HJ100J	J	AA	10 pF (UJ),50V
C331	VCKYPA1HF473Z	J	AB	0.047 µF,50V
C332	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C334	VCCUMN1HJ180J	J	AA	18 pF (UJ),50V
C335	VCCCMN1HH180J	J	AA	18 pF (CH),50V
C336	VCKYMN1HB471K	J	AA	470 pF,50V
C337	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C338	VCKYMN1HB102K	J	AA	0.001 µF,50V
C341,342	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C343	VCCSMN1HL330J	J	AA	33 pF,50V
C345~347	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C350,351	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C352	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C353,354	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C355	VCCSMN1HL220J	J	AA	22 pF,50V
C356	VCKYMN1HB102K	J	AA	0.001 µF,50V
C357	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C358	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C361	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C362	RC-GZA335AF1H	J	AB	3.3 µF,50V,Electrolytic
C363	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C364	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C365	VCTYPA1CX223K	J	AA	0.022 µF,16V
C366	VCKYMN1HB102K	J	AA	0.001 µF,50V
C367	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C368	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C370~372	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C373,374	VCTYPA1CX273K	J	AA	0.027 µF,16V
C375	RC-GZA335AF1H	J	AB	3.3 µF,50V,Electrolytic
C380	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C381	VCCCMN1HH120J	J	AA	12 pF (CH),50V
C382	VCCCMN1HH150J	J	AA	15 pF (CH),50V
C384	VCKYMN1HB102K	J	AA	0.001 µF,50V
C385	VCTYMN1CY103K	J	AA	0.01 µF,16V
C386	VCKYMN1HB331K	J	AA	330 pF,50V
C387	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C391	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C392	VCKYMN1HB102K	J	AA	0.001 µF,50V
C393	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C394	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C395	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C396	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C397	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C398	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C399	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C451,452	RC-GZA475AF1H	J	AB	4.7 µF,50V,Electrolytic
C453,454	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C456,457	RC-GZA107AF1C	J	AB	100 µF,16V,Electrolytic
C458	RC-QZA473AFYJ	J	AB	0.047 µF,50V,Mylar
C460	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
C461	VCTYMN1CX472K	J	AA	0.0047 µF,16V
C462	RC-QZA224AFYJ	J	AB	0.22 µF,50V,Mylar
C463	RC-QZA683AFYJ	J	AB	0.068 µF,50V,Mylar
C464	RC-QZA223AFYJ	J	AB	0.022 µF,50V,Mylar
C465	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
C466	RC-QZA682AFYJ	J	AA	0.0068 µF,50V,Mylar
C467	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
C468	RC-QZA182AFYJ	J	AB	0.0018 µF,50V,Mylar
C469	RC-QZA224AFYJ	J	AB	0.22 µF,50V,Mylar
C470	VCCSPA1HL331J	J	AA	330 pF,50V
C471	RC-GZA107AF1C	J	AB	100 µF,16V,Electrolytic
C472	RC-GZA334AF1H	J	AA	0.33 µF,50V,Electrolytic
C473,474	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
C475	RC-QZA224AFYJ	J	AB	0.22 µF,50V,Mylar
C476	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C501~510	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C511,512	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C513,514	VCKYMN1HB101K	J	AA	100 pF,50V
C515~518	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C519,520	RC-GZA104AF1H	J	AB	0.1 µF,50V,Electrolytic
C521~524	RC-GZA224AF1H	J	AA	0.22 µF,50V,Electrolytic
C525,526	RC-QZA683AFYJ	J	AB	0.068 µF,50V,Mylar
C527,528	RC-GZA224AF1H	J	AA	0.22 µF,50V,Electrolytic
C529,530	RC-QZA333AFYJ	J	AB	0.033 µF,50V,Mylar
C531,532	RC-QZA153AFYJ	J	AB	0.015 µF,50V,Mylar
C533,534	RC-QZA222AFYJ	J	AB	0.0022 µF,50V,Mylar
C535,536	RC-QZA472AFYJ	J	AA	0.0047 µF,50V,Mylar
C537,538	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
C539,540	RC-GZA106AF1H	J	AB	10 µF,50V,Electrolytic
C541,542	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C545,546	RC-GZA106AF1H	J	AB	10 µF,50V,Electrolytic
C549	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C550	RC-GZA337AF1C	J	AC	330 µF,16V,Electrolytic
C551~553	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C555,556	VCKYMN1HB102K	J	AA	0.001 µF,50V
C559	RC-GZA226AF1E	J	AB	22 µF,25V,Electrolytic
C565,566	VCKYMN1HB271K	J	AA	270 pF,50V
C567,568	VCKYMN1HB681K	J	AA	680 pF,50V
C569,570	VCTYMN1CX272K	J	AA	0.0027 µF,16V
C571,572	VCTYMN1CY822K	J	AA	0.0082 µF,16V
C573,574	VCTYMN1CX682K	J	AA	0.0068 µF,16V
C575	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C576~580	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C581,582	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C583	VCTYMN0JY223N	J	AA	0.022 µF,6.3V
C585~588	VCKYMN1HB391K	J	AA	390 pF,50V
C591	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C601	RC-GZA227AF1A	J	AB	220 µF,10V,Electrolytic
C602	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C603	VCKYMN1HB151K	J	AA	150 pF,50V
C604	VCCSPA1HL151J	J	AA	150 pF,50V
C605~607	VCKYMN1HB151K	J	AA	150 pF,50V
C701	VCTYBT1EF223Z	J	AA	0.022 µF,25V
C702	RC-GZA227AF0J	J	AB	220 µF,6.3V,Electrolytic
C703	VCCCBT1HH150J	J	AA	15 pF (CH),50V
C704	VCCCBT1HH180J	J	AA	18 pF (CH),50V
C706	VCTYBT1CY103M	J	AA	0.01 µF,16V
C707	RC-GZA335AF1H	J	AB	3.3 µF,50V,Electrolytic
C708	VCTYBT1CY103M	J	AA	0.01 µF,16V
C709	RC-GZA107AF0J	J	AB	100 µF,6.3V,Electrolytic
C710	RC-GZA227AF0J	J	AB	220 µF,6.3V,Electrolytic
C712,713	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C715	VCTYBT1EF223Z	J	AA	0.022 µF,25V
C716	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C729	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C730	VCTYBT1EF223Z	J	AA	0.022 µF,25V
C801,802	RC-QZA473AFYJ	J	AB	0.047 µF,50V,Mylar
C803,804	RC-QZA473AFYJ	J	AB	0.047 µF,50V,Mylar
C805	RC-GZA107AF1V	J	AB	100 µF,35V,Electrolytic
C806,807	RC-GZA476AF1H	J	AB	47 µF,50V,Electrolytic
C808	RC-GZA476AF1J	J	AC	47 µF,63V,Electrolytic
C809~811	RC-GZA107AF1H	J	AC	100 µF,50V,Electrolytic
C821	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C822	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
C823	RC-GZW478AF1E	J	AG	4700 µF,25V,Electrolytic
C824	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C825,826	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
C827	VCTYBT1EF223Z	J	AA	0.022 µF,25V
C828	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
C829	RC-GZA226AF1E	J	AB	22 µF,25V,Electrolytic
C830,831	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
C851,852	RC-QZA104AFYJ	J	AC	0.1 µF,50V,Mylar
C853,854	RC-QZA154AFYJ	J	AB	0.15 µF,50V,Mylar
C855,856	VCKYMN1HB331K	J	AA	330 pF,50V
C859,860	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C861,862	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C864,865	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C905~908	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C909,910	VCCSPA1HL471J	J	AA	470 pF,50V
C911	VCCSPA1HL470J	J	AA	47 pF,50V
C912	VCCSBT1HL470J	J	AA	47 pF,50V
C913,914	VCCSPA1HL150J	J	AA	15 pF,50V
C915,916	RC-GZA107AF1V	J	AB	100 µF,35V,Electrolytic
C917,918	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C921~924	RC-QZA104AFYJ	J	AC	0.1 µF,50V,Mylar
C935,936	RC-GZA476AF1H	J	AB	47 µF,50V,Electrolytic
C989	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
C990	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C991,992	RC-GZA476AF1H	J	AB	47 µF,50V,Electrolytic
C993	RC-GZA106AF1H	J	AB	10 µF,50V,Electrolytic
C994	RC-GZA107AF1V	J	AB	100 µF,35V,Electrolytic
C995,996	RC-EZ1632AFZZ	J	AL	4700 µF,50V,Electrolytic
C997	RC-GZA476AF1H	J	AB	47 µF,50V,Electrolytic
CM01	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic

RESISTORS

	VRD-MN2BD000C	J	AA	0 ohm,Jumper,ø1.4×3.5mm,Ivory
R1	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R2	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R3	VRD-MN2BD153J	J	AA	15 kohms,1/8W
R4	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R5	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R6	VRD-MN2BD101J	J	AA	100 ohm,1/8W
R7	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R8	VRD-MN2BD123J	J	AA	12 kohms,1/8W
R9	VRD-MN2BD273J	J	AA	27 kohms,1/8W
R10	VRD-ST2CD823J	J	AA	82 kohms,1/6W
R11	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R12	VRD-MN2BD153J	J	AA	15 kohms,1/8W
R13	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R14	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R15	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R16	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
R17	VRD-MN2BD823J	J	AA	82 kohms,1/8W
R18	VRD-ST2CD335J	J	AA	3.3 Mohms,1/6W
R19	VRD-MN2BD393J	J	AA	39 kohms,1/8W
R20	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R21	VRD-MN2BD563J	J	AA	56 kohms,1/8W
R22	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R23	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
R24	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R25	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
R26,27	VRD-MN2BD224J	J	AA	220 kohms,1/8W
R28,29	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R30	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R31	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R32	VRD-MN2BD563J	J	AA	56 kohms,1/8W
R33	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R34	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R35	VRD-MN2BD471J	J	AA	470 ohms,1/8W
R36,37	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R38	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R39,40	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R41	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R42	VRD-MN2BD561J	J	AA	560 ohms,1/8W
R43	VRD-MN2BD220J	J	AA	22 ohms,1/8W
R45	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R46~48	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R49	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R55	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R56	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
R57	VRD-MN2BD273J	J	AA	27 kohms,1/8W
R58	VRD-MN2BD681J	J	AA	680 ohms,1/8W
R60	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R61	VRD-MN2BD221J	J	AA	220 ohms,1/8W
R73,74	VRD-MN2BD272J	J	AA	2.7 kohms,1/8W
R75,76	VRD-MN2BD391J	J	AA	390 ohms,1/8W
R77,78	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R79	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R80	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R81	VRD-ST2EE221J	J	AA	220 ohms,1/4W
R82	VRD-MN2BD151J	J	AA	150 ohms,1/8W
R84	VRD-ST2EE220J	J	AA	22 ohms,1/4W
R86~88	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R92	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R93	VRD-ST2EE3R9J	J	AA	3.9 ohms,1/4W
R94	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
R96	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R97	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
R98	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R101,102	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R103,104	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R105,106	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R107,108	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R109	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R110	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R111,112	VRD-ST2CD153J	J	AA	15 kohms,1/6W
R113,114	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R115	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R117,118	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R119,120	VRD-ST2CD560J	J	AA	56 ohms,1/6W
R121,122	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R123,124	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R125,126	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R127,128	VRD-MN2BD822J	J	AA	8.2 kohms,1/8W
R131,132	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R134	VRD-MN2BD683J	J	AA	68 kohms,1/8W
R135,136	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W
R137,138	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
R139,140	VRD-MN2BD561J	J	AA	560 ohms,1/8W
R141	VRD-ST2CD470J	J	AA	47 ohms,1/6W

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
R142	VRD-MN2BD470J	J	AA	47 ohms,1/8W
R143~147	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R149,150	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R152	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R153	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R154	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R155,156	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R157	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R158	VRD-ST2EE471J	J	AA	470 ohms,1/4W
R160,161	VRD-ST2EE271J	J	AA	270 ohms,1/4W
R162	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R164	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R166	VRD-MN2BD273J	J	AA	27 kohms,1/8W
R167	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R168	VRD-MN2BD4R7J	J	AA	4.7 ohms,1/8W
R181,182	VRD-ST2CD393J	J	AA	39 kohms,1/6W
R191	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R192	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R193	VRD-ST2EE221J	J	AA	220 ohms,1/4W
R218,219	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R223	VRD-ST2CD224J	J	AA	220 kohms,1/6W
R319	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R323	VRD-MN2BD683J	J	AA	68 kohms,1/8W
R324	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R336	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R344	VRD-MN2BD471J	J	AA	470 ohms,1/8W
R345	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R350	VRD-ST2CD272J	J	AA	2.7 kohms,1/6W
R351	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R352	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R353	VRD-MN2BD271J	J	AA	270 ohms,1/8W
R354	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
R355	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R356	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R357	VRD-ST2CD474J	J	AA	470 kohms,1/6W
R358	VRD-MN2BD822J	J	AA	8.2 kohms,1/8W
R359	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W
R360	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R361,362	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R363,364	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W
R365	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R366	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R367	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R368	VRD-ST2CD333J	J	AA	33 kohms,1/6W
R369	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
R371~374	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R376	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R377	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R378	VRD-MN2BD823J	J	AA	82 kohms,1/8W
R379	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R380	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
R381	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R382	VRD-ST2EE151J	J	AA	150 ohms,1/4W
R383~385	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R387	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R391,392	VRD-ST2EE391J	J	AA	390 ohms,1/4W
R393	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R395	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R449	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W
R451	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R452	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R453,454	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R455,456	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
R457,458	VRD-ST2CD123J	J	AA	12 kohms,1/6W
R465,466	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R468,469	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R470	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R473,474	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R475	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R478	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R479	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R480	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R481	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
R482	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R483	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R484	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
R487	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R488	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R490	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R491	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W
R492	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R493	VRD-MN2BD102J	J	AA	1 kohm,1/8W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
R494	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R495	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R497	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R498	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R499	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W
R500	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R501,502	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R503,504	VRD-MN2BD153J	J	AA	15 kohms,1/8W
R509,510	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R511~520	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R521,522	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R525	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R528~530	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R531	VRD-MN2BD394J	J	AA	390 kohms,1/8W
R532	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R533	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R534	VRD-MN2BD224J	J	AA	220 kohms,1/8W
R535	VRD-MN2BD474J	J	AA	470 kohms,1/8W
R536	VRD-MN2BD123J	J	AA	12 kohms,1/8W
R537	VRD-MN2BD393J	J	AA	39 kohms,1/8W
R538	VRD-ST2CD224J	J	AA	220 kohms,1/6W
R539	VRD-MN2BD394J	J	AA	390 kohms,1/8W
R540	VRD-ST2CD123J	J	AA	12 kohms,1/6W
R541	VRD-MN2BD683J	J	AA	68 kohms,1/8W
R542	VRD-MN2BD224J	J	AA	220 kohms,1/8W
R543	VRD-MN2BD684J	J	AA	680 kohms,1/8W
R544	VRD-MN2BD183J	J	AA	18 kohms,1/8W
R545	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R546	VRD-ST2CD224J	J	AA	220 kohms,1/6W
R547	VRD-MN2BD225J	J	AA	2.2 Mohms,1/8W
R548	VRD-MN2BD563J	J	AA	56 kohms,1/8W
R549	VRD-MN2BD474J	J	AA	470 kohms,1/8W
R550	VRD-MN2BD225J	J	AA	2.2 Mohms,1/8W
R551	VRD-ST2CD153J	J	AA	15 kohms,1/6W
R552	VRD-MN2BD564J	J	AA	560 kohms,1/8W
R553	VRD-MN2BD274J	J	AA	270 kohms,1/8W
R554,555	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R556	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R557,558	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R559,560	VRD-ST2EE331J	J	AA	330 ohms,1/4W
R561,562	VRD-MN2BD273J	J	AA	27 kohms,1/8W
R563,564	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W
R565,566	VRD-MN2BD273J	J	AA	27 kohms,1/8W
R567,568	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W
R569,570	VRD-ST2CD224J	J	AA	220 kohms,1/6W
R571	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R572	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R575,576	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R602	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R604~618	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R620~627	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R628	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R632,633	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R634,635	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R636,637	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R638	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R640	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R641~643	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R645~647	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R649	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R650	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R651~653	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R654	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R655	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R656	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R657,658	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R659	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R660,661	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R662	VRD-ST2CD123J	J	AA	12 kohms,1/6W
R663	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R667	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R671	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R675	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R676	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R679	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R680	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R684	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R701~710	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R711	VRD-ST2CD101J	J	AA	100 ohm,1/6W
R712~722	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R726,727	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R728	VRD-ST2CD103J	J	AA	10 kohm,1/6W

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
R729	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R731~736	VRD-ST2CD822J	J	AA	8.2 kohms,1/6W
R737~741	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R742~744	VRD-ST2CD821J	J	AA	820 ohms,1/6W
R745	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R746~748	VRD-ST2CD821J	J	AA	820 ohms,1/6W
R749	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R763	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R765	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
R766	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R767	VRD-ST2CD820J	J	AA	82 ohms,1/6W
R768,769	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R770	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R771	VRD-ST2CD101J	J	AA	100 ohm,1/6W
R772	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R773	VRD-ST2EE270J	J	AA	27 ohms,1/4W
R774	VRD-ST2CD151J	J	AA	150 ohms,1/6W
R775	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R776	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R777	VRD-ST2CD330J	J	AA	33 ohms,1/6W
R778	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R779	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R780	VRD-ST2CD182J	J	AA	1.8 kohms,1/6W
R781	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R801	VRD-ST2CD123J	J	AA	12 kohms,1/6W
R802,803	VRD-ST2EE221J	J	AA	220 ohms,1/4W
R806	VRD-ST2CD101J	J	AA	100 ohm,1/6W
R807	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R820	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R821	VRD-ST2CD470J	J	AA	47 ohms,1/6W
R822	VRD-ST2EE561J	J	AA	560 ohms,1/4W
R823	VRD-ST2CD470J	J	AA	47 ohms,1/6W
R824	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R825	VRD-ST2CD333J	J	AA	33 kohms,1/6W
R826	VRD-ST2EE561J	J	AA	560 ohms,1/4W
R828	VRD-ST2CD470J	J	AA	47 ohms,1/6W
R829	VRD-ST2CD102J	J	AA	1 kohm,1/6W
⚠ R830	VRG-ST2EC220J	J	AB	22 ohms,1/4W,Fusible
R831	VRD-ST2EE122J	J	AA	1.2 kohms,1/4W
R832	VRD-ST2EE101J	J	AA	100 ohm,1/4W
R851,852	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R853,854	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R855,856	VRD-MN2BD822J	J	AA	8.2 kohms,1/8W
R857,858	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R861,862	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
R863,864	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R865,866	VRD-ST2EE331J	J	AA	330 ohms,1/4W
R907,908	VRD-ST2CD563J	J	AA	56 kohms,1/6W
R909,910	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R911,912	VRD-ST2CD563J	J	AA	56 kohms,1/6W
R913,914	VRD-ST2CD471J	J	AA	470 ohms,1/6W
R915,916	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R917,918	VRD-ST2EE222J	J	AA	2.2 kohms,1/4W
R919,920	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R921~924	VRS-VV3AAR20J	J	AB	0.2 ohms,1W
R925,926	VRD-ST2CD563J	J	AA	56 kohms,1/6W
R927,928	VRD-ST2EE4R7J	J	AA	4.7 ohms,1/4W
R933~936	VRD-RT2HD181J	J	AA	180 ohms,1/2W
R937,938	VRD-ST2EE222J	J	AA	2.2 kohms,1/4W
R939,940	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R985	VRS-VV3DA821J	J	AC	820 ohms,2W
R986	VRD-RT2HD102J	J	AA	1 kohm,1/2W
⚠ R987	VRG-ST2EC101J	J	AB	100 ohm,1/4W,Fusible
R988	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R989	VRD-ST2CD154J	J	AA	150 kohms,1/6W
R990	VRD-ST2CD224J	J	AA	220 kohms,1/6W
R991	VRD-RT2HD102J	J	AA	1 kohm,1/2W
R992	VRD-ST2CD393J	J	AA	39 kohms,1/6W
⚠ R993	VRG-ST2EC101J	J	AB	100 ohm,1/4W,Fusible
R994	VRD-ST2CD391J	J	AA	390 ohms,1/6W
R995	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R996	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R997	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
R998	VRD-ST2CD563J	J	AA	56 kohms,1/6W
RD1	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RD2	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W
RD3	VRD-ST2CD182J	J	AA	1.8 kohms,1/6W
RD4	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
RD5	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
RD6	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
RD7	VRD-ST2CD123J	J	AA	12 kohms,1/6W
RD8	VRD-ST2CD102J	J	AA	1 kohm,1/6W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
RD9	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W
RD10	VRD-ST2CD182J	J	AA	1.8 kohms,1/6W
RD11	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
RD12	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
RD13	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
RD14	VRD-ST2CD123J	J	AA	12 kohms,1/6W
RD15	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RD16	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W
RD17	VRD-ST2CD182J	J	AA	1.8 kohms,1/6W
RD18	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
RD19	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
RD20	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
RD21	VRD-ST2CD123J	J	AA	12 kohms,1/6W
RD22	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RD23	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W
RD24	VRD-ST2CD182J	J	AA	1.8 kohms,1/6W
RD25	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
RD26	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
RD27	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
RD28	VRD-ST2CD123J	J	AA	12 kohms,1/6W
RD29	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RD30	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W
RD31	VRD-ST2CD182J	J	AA	1.8 kohms,1/6W
RD32	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
RD33	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
RD34	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
RD35	VRD-ST2CD123J	J	AA	12 kohms,1/6W
RD36	VRD-ST2CD153J	J	AA	15 kohms,1/6W
RM02	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
RM03	VRD-ST2CD333J	J	AA	33 kohms,1/6W
RM05	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RM06	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
RM07	VRD-RT2HD100J	J	AA	10 ohm,1/2W
RM08	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RM09	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
RM10	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W
RM11	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
RM12	VRD-ST2CD333J	J	AA	33 kohms,1/6W
RM14~16	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RM19	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
RM20	VRD-MN2BD103J	J	AA	10 kohm,1/8W

OTHER CIRCUITRY PARTS

BI102/CNS102	QCNWN0941AWZZ	J	AK	Connector Ass'y,6-7Pin
BI801/CNS801	QCNWN0904AWZZ	J	AE	Connector Ass'y,6-6Pin
BIM5/CNS10/CNS5	QCNWN0894AWZZ	J	AH	Connector Ass'y,6-10-2Pin
CNP3A	92LCONE6P53253	J	AC	Plug,6Pin
CNP1	QCNCM931EAFZZ	J	AC	Plug,5Pin
CNP2	92LCONE8P53253	J	AC	Plug,8Pin
CNP3	92LCONE6P53253	J	AC	Plug,6Pin
CNP10	QCNCM931KAFZZ	J	AD	Plug,10Pin
CNP101	92LCONE3P5267X	J	AB	Plug,3Pin
CNP102	92LCONE7P5267X	J		Plug,7Pin
CNP303	QCNCM010LAWZZ	J	AC	Plug,11Pin
CNP501	QCNCM010LAWZZ	J	AC	Plug,10Pin
CNP502	QCNCW010LAWZZ	J	AD	Plug,11Pin
CNP801	QCNCM742FAFZZ	J	AB	Plug,6Pin
CNPM1	QCNCW025NAWZZ	J	AB	Flat Wire Holder
CNPM2	QCNCM030BAWZZ	J	AB	Pin Header
CNS1A/B	QCNWN0891AWZZ	J	AG	Connector Ass'y,5-5Pin
CNS2A/B	QCNWN0892AWZZ	J	AF	Connector Ass'y,8-8Pin
CNS3A/B	QCNWN0893AWZZ	J	AF	Connector Ass'y,6-6Pin
CNS101	QCNWN0660AWZZ	J	AH	Connector Ass'y,3Pin
CNS501	QCNCW010LAWZZ	J	AD	Connector Ass'y,
⚠ F802,803	92LFUSE-T502-E	J	AD	Fuse,T5.0A
⚠ F804	92LFUSE-T162-E	J	AD	Fuse,T1.6A L 250V
⚠ F821	92LFUSE-T501-E	J	AD	Fuse,T500mA L 250V
FE301	RTUNS0008AWZZ	J	AN	FM Front End
FL701	VVKBJ549GK/-1	J	AX	FL Display
FW701	QCNWN0946AWZZ	J	AD	Flat Wire,6Pin
FW702	QCNWN0944AWZZ	J	AD	Flat Wire,10Pin
FW703	QCNWN0945AWZZ	J	AF	Flat Wire,13Pin
FW901	QCNWN0969AWZZ	J	AE	Flat Wire,9Pin
FW902	QCNWN0902AWZZ	J	AC	Flat Wire,3Pin
FW903	QCNWN0903AWZZ	J	AE	Flat Wire,5Pin
FWM1	QCNWN0943AWZZ	J	AF	Flat Wire,13Pin
FWM2	QCNWN0942AWZZ	J	AC	Flat Wire,4Pin
J501	QSOCJ0401AWZZ	J	AH	Jack,Video/AUX
JA901	QJAKM0005AWZZ	J	AD	Jack,Headphones
M1	92LMTR1858CASY	J	AS	Motor with Chassis [Spindle]
M2	92LMTR1854BASY	J	AP	Motor with Gear [Sled]

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
M3	92LMTR2037AS1	J	AP	Motor with Worm Pulley [T/T Up/Down]
MM1	RMOTV0060AWM2	J		Motor with Pulley [Tape]
RL901	RRLYD0004AWZZ	J	AP	Relay
RX701	VHLSPSP440/-1	J	AH	Remote Sensor,SPSP440
SO301	QTANC0301AWZZ	J	AH	Terminal,Antenna
SO901	QTANA0404AWZZ	J	AF	Terminal,Speaker
SOLM1,2	RPLU-0002AWZZ	J	AH	Solenoid Ass'y
SW1	QSW-P0004AWZZ	J	AE	Switch,Push Type [Open/Close]
SW2	QSW-F0001AWZZ	J	AD	Switch,Leaf Type [Mecha Up]
SW3	QSW-P0005AWZZ	J	AD	Switch,Push Type [Disc Number]
SW4	QSW-F9001AWZZ	J	AE	Switch,Leaf Type [Pickup In]
SW601	QSW-S0024AWZZ	J	AE	Switch,Slide Type [Span Selector]
SW701	92LSWICHT1663T	J	AC	Switch,Key Type [ON/STAND-BY]
SW702	92LSWICHT1663T	J	AC	Switch,Key Type [CLOCK]
SW703	92LSWICHT1663T	J	AC	Switch,Key Type [TIME/SLEEP]
SW704	92LSWICHT1663T	J	AC	Switch,Key Type [DISC 1]
SW705	92LSWICHT1663T	J	AC	Switch,Key Type [DISC 2]
SW706	92LSWICHT1663T	J	AC	Switch,Key Type [DISC 3]
SW707	92LSWICHT1663T	J	AC	Switch,Key Type [DISC SKIP]
SW708	92LSWICHT1663T	J	AC	Switch,Key Type [OPEN/CLOSE]
SW709	92LSWICHT1663T	J	AC	Switch,Key Type [CD]
SW710	92LSWICHT1663T	J	AC	Switch,Key Type [TUNER/BAND]
SW711	92LSWICHT1663T	J	AC	Switch,Key Type [TAPE]
SW712	92LSWICHT1663T	J	AC	Switch,Key Type [VIDEO]
SW717	92LSWICHT1663T	J	AC	Switch,Key Type [CENTER MODE/PHANTOM]
SW719	92LSWICHT1663T	J	AC	Switch,Key Type [CENTER MODE/NORMAL]
SW721	92LSWICHT1663T	J	AC	Switch,Key Type [DOLBY PRO LOGIC/BYPASS]
SW723	92LSWICHT1663T	J	AC	Switch,Key Type [REC/PAUSE]
SW724	92LSWICHT1663T	J	AC	Switch,Key Type [TUNING UP/TIME]
SW725	92LSWICHT1663T	J	AC	Switch,Key Type [VOLUME UP]
SW726	92LSWICHT1663T	J	AC	Switch,Key Type [X-BASS]
SW728	92LSWICHT1663T	J	AC	Switch,Key Type [STOP]
SW729	92LSWICHT1663T	J	AC	Switch,Key Type [FWD]
SW730	92LSWICHT1663T	J	AC	Switch,Key Type [FF]
SW731	92LSWICHT1663T	J	AC	Switch,Key Type [MEMORY SET]
SW732	92LSWICHT1663T	J	AC	Switch,Key Type [TUNING DOWN/TIME]
SW733	92LSWICHT1663T	J	AC	Switch,Key Type [VOLUME DOWN]
SW734	92LSWICHT1663T	J	AC	Switch,Key Type [EQUALIZER/DEMO]
SW735	92LSWICHT1663T	J	AC	Switch,Key Type [3D SURROUND]
SW736	92LSWICHT1663T	J	AC	Switch,Key Type [REVERSE MODE]
SW737	92LSWICHT1663T	J	AC	Switch,Key Type [REV]
SW738	92LSWICHT1663T	J	AC	Switch,Key Type [REW]
SW739	92LSWICHT1663T	J	AC	Switch,Key Type [EDIT NORMAL]
SW740	92LSWICHT1663T	J	AC	Switch,Key Type [EDIT HIGH]
SW801	QSOCE0006AWZZ	J	AH	Switch,Slide Type [Voltage Selector]
SWM3	92LM-SW1676A	J	AC	Switch,Leaf Type [REC FWD]
SWM4	92LM-SW1676A	J	AC	Switch,Leaf Type [REC RVS]
SWM5	QSW-F9003AWZZ	J	AG	Switch,Leaf Type [F.A.S.]
SWM6	92LM-SW1676B	J		Switch,Leaf Type [CAM]
WT502	92LCONE7P52287	J	AC	Socket,Wire Trap,7Pin
WT601	QCNCW012NAWZZ	J	AE	Socket,Wire Trap,13Pin
WT901	92LCONE9P52287	J	AC	Socket,Wire Trap,9Pin
WT903	92LCONE5P52287	J	AC	Socket,Wire Trap,5Pin
WTM1	QCNCW012NAWZZ	J	AE	Socket,Wire Trap,13Pin

CASSETTE MECHANISM PARTS

1	LCHSM0039AWM1	J		Main Chassis Ass'y
2	LPLTP0001AWZZ	J	AD	Plate,Head [Tape 1]
3	LDAIH0002AWZZ	J	AD	Plate,Head [Tape 2]
4	NDAIR0004AW01	J	AG	Take-Up Reel Ass'y [Tape 1]
7	NROLY0003AWM1	J	AF	Pinch Roller Foward Ass'y
8	NFLYC0012AWM1	J	AG	Flywheel Ass'y [Tape 1]
9	NFLYC0013AWM1	J	AG	Flywheel Foward Ass'y [Tape 2]
11	MCAMP0005AWZZ	J	AC	Gear,Cam

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
13	NGERH0030AWZZ	J	AE	Gear,Play Idler
15	NPLYB0004AWZZ	J	AB	Sensor,Wing
16	MLEVP0060AWZZ	J	AB	Lever,Trigger
17	MLEVP0027AWZZ	J	AC	Lever,Lock [Tape 1]
18	MLEVP0028AWZZ	J	AC	Lever,Eject Obstruct [Tape 1]
19	MLEVP0061AWZZ	J	AB	Lever,Eject Obstruct [Tape 2]
20	LHLDS1001AW01	J	AE	Bearing Holder Ass'y
22	PGIDM0009AWZZ	J	AC	Guide,Cassette [Tape 1]
23	MLEVF0011AWFW	J	AD	Lever,Over Strok [Tape 1]
24	MLEVF0012AWM1	J	AE	Lever,Over Strok Ass'y [Tape 2]
25	MLEVF0015AWM1	J	AE	Lever,Mode Ass'y
26	MLEVF0007AW01	J	AC	Lever,Idler Ass'y [Tape 1]
28	LANGT0039AWFW	J	AC	Blacket Motor
29	LANGT0040AWFW	J	AC	Blacket Hold
31	MSPRP0005AWFW	J	AB	Spring,Cassette
32	MSPRT0007AWFJ	J	AB	Spring,Reverse Plate
33	MSPRD0031AWFJ	J	AB	Spring,Lock Lever [Tape 1]
34	MSPRD0081AWFJ	J	AB	Spring,Mode Lever
35	MSPRD0033AWFJ	J	AB	Spring,Play Idler Lever
36	MSPRD0034AWFJ	J	AB	Spring,Play Roller
37	MSPRD0035AWFJ	J	AB	Spring,Eject Obstruct [Tape 1]
39	MSPRD0037AWFJ	J	AB	Spring,Over Strok Lever
40	MSPRD0083AWFJ	J	AB	Spring,Trigger Lever
42	MSPRD0082AWFJ	J	AB	Spring,Over Stroke Lever [Tape 2]
43	NBLTK0021AWZZ	J	AB	Belt,Sub
44	NBLTH0003AWZZ	J	AC	Belt,Main [Tape 1]
45	NBLTH0004AWZZ	J	AC	Belt,Main [Tape 2]
52	92LM-LEV1756A	J	AB	Lever,Lock [Tape 2]
53	92LM-TSPR1756C	J	AB	Spring,Lock Lever [Tape 2]
55	92LM-RPH1746A	J	AM	Head,Playback [Tape 1]
56	RHEDK0002AWM1	J	AQ	Head,Record/Playback/Erace with Flexible PWB [Tape 2]
58	MSPRC0019AWFJ	J	AB	Spring,Back Tention
59	92LN-BAND1318A	J	AA	Nylon Band,80mm
60	PGIDM0020AWZZ	J	AB	Head Bobbin
61	LPLTM0005AWZZ	J	AC	Head Support
62	NDAIR0007AWZZ	J	AB	Reel Table
63	NROLY0004AWM1	J	AF	Pinch Roller Reverse Ass'y
64	NROLY0002AWZZ	J	AF	Pinch Roller Ass'y
65	NFLYC0014AWM1	J	AF	Flywheel Reverse Ass'y [Tape 2]
66	MLEVP0059AWM1	J	AH	Drive Lever Ass'y
67	NGERH0060AWZZ	J	AB	Gear,FF Idlar
68	MLEVP0062AWZZ	J	AB	Lever,H Change
69	MLEVP0063AWZZ	J	AB	Lever,Switch
70	LHLDS1003AWM1	J	AD	Bearing Holder Forward Ass'y
71	LHLDS1004AWM1	J	AD	Bearing Holder Reverse Ass'y
72	MLEVF0013AWFW	J	AC	Lever,Head Plate
73	MLEVF0014AWM1	J	AE	Reverse Plate Ass'y
74	MLEVF0016AWFW	J	AB	Lever,Joint
75	MSPRD0084AWFJ	J	AB	Spring,Driving Lever
76	MSPRD0085AWFJ	J	AB	Spring,H Change
77	MSPRD0086AWFJ	J	AB	Spring,Reel Support
78	MSPRD0087AWFJ	J	AB	Spring,Reel Support
79	MSPRD0088AWFJ	J	AB	Spring,Reel Support [Tape 1]
80	MSPRD0101AWFJ	J	AB	Spring,Head Bobbin
501	LX-BZ0012AWFD	J	AA	Screw,ø2.6×5mm
502	XHBSD20P04000	J	AA	Screw,ø2×4mm
503	XHBSD20P05000	J	AA	Screw,ø2×5mm
504	XWVSD22-03000	J	AA	Washer,ø2.2×0.3mm
505	XWHJZ23-02034	J	AA	Washer,ø2.3×ø3.4×0.25mm
506	LX-BZ0004AWFD	J	AC	Screw,Lock Lever
507	LX-BZ0778AFFD	J	AA	Screw,ø2×6mm
508	LX-WZ9064AFZZ	J	AA	Washer,ø1.5×ø3.8×0.5mm
510	LX-WZ9230AFZZ	J	AA	Washer,ø1.8×ø4×0.5mm
511	XSPSD14P08000	J		Screw,ø14×8mm
513	XWSSD14-05000	J	AA	Washer,ø1.4×0.5mm
MM1	92LMTR2512AASY	J	AT	Motor with Pulley [Tape]
SOLM1	92LM-SOL1676A	J		Solenoid Ass'y
SWM3	92LM-SW1676A	J	AC	Switch,Leaf Type [REC FWD]
SWM4	92LM-SW1676A	J	AC	Switch,Leaf Type [REC RVS]
SWM5	QSW-F9003AWZZ	J	AG	Switch,Leaf Type [F.A.S.]
SWM6	92LM-SW1676B	J		Switch,Leaf Type [CAM]

CD MECHANISM PARTS

301	NGERH0011AWZZ	J	AC	Gear,Middle
302	NGERH0012AWZZ	J	AC	Gear,Drive
303	MLEVP0010AWZZ	J	AC	Rail,Guide
304	NSFTM0002AWFW	J	AE	Shaft,Guide
305	92LM-CUSN1524A	J	AC	Insulator
⚠306	92LHPC1MASY	J	BG	Pickup Unit Ass'y

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
306- 1	————		—	Pickup Unit (Not Replacement Item)
306- 2	NGERR0043AFZZ	J	AC	Gear,Rack
306- 3	MSPRC0961AFZZ	J	AA	Spring,Rack
701	92L2R6S+6CZ	J	AB	Screw,ø2.6×6mm
702	XHBSD20P05000	J	AA	Screw,ø2×5mm
703	XBBSD20P03000	J	AA	Screw,ø2×3mm
704	92L1R5WC3R8R25	J	AA	Washer,ø1.5×ø3.8×0.25mm
M1	92LMTR1858CASY	J	AS	Motor with Chassis [Spindle]
M2	92LMTR1854BASY	J	AP	Motor with Gear [Sled]
SW4	QSW-F9001AWZZ	J	AE	Switch,Leaf Type [Pickup In]

CABINET PARTS

201	92LCAB2518AS1	J	BB	Front Panel Ass'y
201- 1	————		—	Front Panel (Not Replacement Item)
201- 2	PCUSG0022AWZZ	J	AB	Cushion,Leg
201- 3	HDECQ0186AWSA	J	AD	Operation Panel
201- 4	JKNBZ0335AWSA	J	AC	Knob,Tuner/Memory
201- 4	92LBADGE1692A	J	AC	Badge,SHARP
201- 5	JKNBZ0336AWSA	J	AC	Knob,Open/Close,Rec./Playback
201- 6	JKNBZ0337AWSB	J	AD	Knob,X-BASS
201- 7	JKNBZ0346AWSA	J	AB	Knob,Graphic Equalizer
201- 8	JKNBZ0347AWSA	J	AB	Knob,Rec.Pause
201-10	JKNBZ0350AWSA	J	AD	Knob,Open/Close
201-11	JKNBZ0353AWSA	J	AH	Knob,Operation A
201-12	JKNBZ0354AWSB1	J	AF	Knob,Disc Number
201-13	JKNBZ0356AWSA	J	AM	Knob,Operation B
201-14	JKNBZ0383AWSA	J	AG	Knob,SRS
201-15	JKNBZ0391AWSA	J	AD	Knob,Function
202	GCAB-1045AWSB	J	AL	Top Cabinet
203	GITAR0230AWSA	J	AK	Back Board
204	GDORF0038AWSB	J	AF	Cassette Holder,Tape 1
205	92LPNL2518AS1	J	AP	Amp.Panel Ass'y
205- 1	————		—	Amp.Panel (Not Replacement Item)
205- 2	92LBADGE1692A	J	AC	Badge,SHARP
206	GDORF0039AWSB	J	AF	Cassette Holder,Tape 2
207	HDECQ0217AWSC	J	AH	Panel,Cassette,Tape 1
208	HDECQ0218AWSC	J	AH	Panel,Cassette,Tape 2
209	92LCAB2503BS1	J	AK	Side Panel Ass'y,Left
209- 1	————		—	Side Panel,Left (Not Replacement Item)
209- 2	PCUSG0022AWZZ	J	AB	Cushion,Leg
210	92LCAB2503CS1	J	AK	Side Panel Ass'y,Right
210- 1	————		—	Side Panel,Right (Not Replacement Item)
210- 2	PCUSG0022AWZZ	J	AB	Cushion,Leg
211	GCOVA1135AWSC	J	AG	Cover,CD Tray
213	MLIFP0003AWZZ	J	AE	Damper
214	MSPRD0092AWFJ	J	AB	Spring,Cassette,Tape 1
215	LCHSM0032AWFW	J	AR	Main Chassis
⚠216	QACCA0001AW00	J	AM	AC Power Supply Cord [For Saudi Arabia]
⚠216	QACCB0003AW00	J	BA	AC Power Supply Cord [For Hong Kong]
⚠216	QACCE0008AW00	J	AG	AC Power Supply Cord [Except for Hong Kong/Saudi Arabia/Australia/New Zealand/ Taiwan]
⚠216	92LCORDA1387C	J	AP	AC Power Supply Cord [For Australia/New Zealand]
⚠216	92LCORDT1699A	J	AL	AC Power Supply Cord [For Taiwan]
217	92LN-BAND1318A	J	AA	Nylon Band,80mm
219	MSPRD0093AWFJ	J	AB	Spring,Cassette,Tape 2
227	MLEVP0068AWZZ	J	AB	Lever,Change
228	LCHSZ0011AWZZ	J	AG	Chassis,CD Mechanism
229	NGERK0004AWZZ	J	AB	Gear,Bevel
230	MSPRC0021AWFJ	J	AB	Spring,Worm Wheel
231	NGERW0006AWZZ	J	AC	Gear,Worm Wheel
232	NPLYD0001AWZZ	J	AB	Pulley
233	NGERK0005AWZZ	J	AB	Gear,Loading
234	MLEVP0066AWZZ	J	AE	Lever,Shift
235	NGERH0064AWZZ	J	AD	Gear,Cam
236	NGERK0003AWZZ	J	AC	Gear,Drive
237	LHLDZ1141AWZZ	J	AB	Support,Pinch
238	NGERH0065AWZZ	J	AB	Gear,Turntable
239	NBLTK0029AWZZ	J	AB	Belt,Drive
240	MSPRD0044AWFJ	J	AB	Spring,Lock Lever
241	MLEVP0067AWZZ	J	AC	Lever,Lock
242	LCHSZ0010AWZZ	J	AM	Chassis,Loading
243	NROLP0009AWZZ	J	AB	Roller
244	MLEVP0070AWZZ	J	AB	Lever,T/T Lock
245	MSPRC0020AWFJ	J	AB	Spring,T/T Lock Lever
246	GCAB-1044AWSA	J	AM	CD Player Base
247	LHLDZ1139AWSA	J	AD	Support,Stabilizer
248	92LHOLD2037AS1	J	AK	Stabilizer Ass'y
248- 1	————		—	Stabilizer (Not Replacement Item)
248- 2	PMAGF0001AWZZ	J	AF	Magnet
248- 3	92LSUPT1749D	J	AA	Bracket,Magnet
249	NTNT-0018AWSA	J	AK	Turntable
250	LHLDZ1140AWZZ	J	AB	Guide
251	LHLDZ1143AWZZ	J	AD	Holder,FL Display
252	PRDAR0035AWFW	J	AQ	Heat Sink B
253	PRDAR0049AWFW	J	AK	Heat Sink Transistor
254	PRDAR0084AWFW	J		Heat Sink Main
255	LHLDZ1142AWZZ	J	AB	Holder,LED
257	PCOVQ1005AWZZ	J		Heat Plate
⚠258	92LFSHOLD1652T	J	AB	Holder,Fuse
260	HDECQ0185AWSC	J	AF	CD Top Panel
267	LANGK0070AWFW	J	AD	PWB Bracket A
270	LANGT0038AWFW	J	AE	Bracket,Heat Shield
271	PCUSG0027AWZZ	J	AB	Cushion,Worm Wheel
272	MSPRC0024AWFW	J	AB	Spring,Solenoid
276	PCOVU9004AW00	J	AB	Felt,Operation Knob
277	LBSHC0002AWZZ	J	AD	Bushing,AC Power Supply Cord
278	LHLDF1015AWZZ	J	AF	Holder,Main PWB
279	LANGJ0005AWFW	J	AC	Bracket,PWB Connect
280	TSPC-0445AWZZ	J		Label,Specifications [For Thailand Only]
280	TSPC-0446AWZZ	J		Label,Specifications [For Taiwan Only]
283	92LRDAT1587A	J	AC	Heat Sink,Diode
284	92LCAUT1706A1	J	AC	Label,Class 3A
285	92LCAUT1706B	J	AA	Label,Laser
286	LHLDZ1144AWZZ	J	AC	Holder,LED
287	LHLDZ1105AWZZ1	J	AD	Holder,LED
288	LHLDZ1142AWZZ	J	AB	Holder,LED
⚠289	92LLUG1746A	J	AA	Lug Terminal
293	PCUSG0029AWZZ	J	AC	Cushion,CD Loading Chassis
294	92LCLMP1810A	J	AC	Wire Holder
297	TLABS0131AWZZ	J		Label,CPA
298	92LLABL1204C	J	AA	Label,Made in Malaysia [For Australia/New Zealand]
298	92LPANEL713A	J	AB	Label,Made in Malaysia [Except for Australia/New Zealand]
601	XESSD30P10000	J	AA	Screw,ø3×10mm
602	LX-JZ0022AFFD	J	AA	Screw,ø3×8mm
603	XEBSD30P10000	J	AA	Screw,ø3×10mm
604	XJBSD30P06000	J	AA	Screw,ø3×6mm
605	XJBSD30P08000	J	AA	Screw,ø3×8mm
607	XJBSD30P14000	J	AA	Screw,ø3×14mm
608	XEBSF30P12000	J	AA	Screw,ø3×12mm
609	XJBSF30P08000	J	AA	Screw,ø3×8mm
610	LX-TZ0019AFZZ	J	AB	Screw,Special
611	LX-HZ0082AFZZ	J	AA	Screw,ø4×8mm
612	LX-JZ0010AFFD	J	AA	Screw,ø3×10mm
613	LX-EZ0005AWFD	J	AA	Screw,Special
614	LX-JZ0039AFFD	J	AA	Screw,ø3×12mm
617	LX-JZ0002AWFD	J	AA	Screw,ø3×10mm
618	LX-LZ0002AW00	J	AC	Snap Rivet
619	XBPSD26P05JS0	J	AA	Screw,ø2.6×5mm
620	XEBSD26P12000	J	AA	Screw,ø2.6×12mm
622	XEBSD30P12000	J	AA	Screw,ø3×12mm
623	XJSSF30P10000	J	AA	Screw,ø3×10mm
624	XJBSD30P10000	J	AA	Screw,ø3×10mm

ACCESSORIES/PACKING PARTS

	QANTL0006AWZZ	J	AG	AM Loop Antenna
	SPAKA0156AWZZ	J	AQ	Packing Add.
	SPAKC0529AWZZ	J	AX	Packing Case [Except for Australia/New Zealand]
	SPAKC0530AWZZ	J	AX	Packing Case [For Australia/New Zealand]
	SPAKP0013AWZZ1	J	AC	Polyethylene Bag,Unit
	TCAUA0012AWZZ	J	AB	Caution Label,Operation Manual [For Taiwan Only]
	TCAUS0014AWZZ	J	AC	Caution Label [For Taiwan Only]

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
	TINST0026AWZZ	J		Operation Manual [For Thailand]
	TINSZ0227AWZZ	J	AR	Operation Manual [Except for Thailand]
	TLABZ0387AWZZ	J	AD	Label,Feature
	92LBAG1460C1	J	AB	Polyethylene Bag,Accessories
	92LBAG1770A	J	AB	Polyethylene Bag,AC Plug Adaptor [For Hong Kong Only]
	92LFANT1746A	J	AD	FM Antenna
	92LGCARD1266E1	J	AC	Warranty Card [For Australia/New Zealand Only]
	92LPLUG027	J	AD	AC Plug Adaptor [For Saudi Arabia]
	92LPLUG155A	J	AG	AC Plug Adaptor [Except for Saudi Arabia]
	RRMCG0092AWSA	J	AX	Remote Control
	92LLID1782A	J	AQ	Battery Lid,Remote Control

P.W.B. ASSEMBLY (Not Replacement Item)

PWB-A1~3	92LPWB2518MAN1	J	—	Main/SRS/Headphones (Combined Ass'y)
PWB-B1,2	92LPWB2518PWR1	J	—	Power/Power Amp. (Combined Ass'y)
PWB-C	92LPWB2518DPL1	J	—	Display
PWB-D	92LPWB2518TUN1	J	—	Tuner
PWB-E	QPWBF0027AWZZ	J	AD	CD Motor (PWB Only)
PWB-F	QPWBF0314AWZZ	J	AD	Tape Mechanism (PWB Only)
PWB-G	QPWBF0341AWZZ	J	AB	Sensor (PWB Only)
PWB-H	QPWBF0313AWZZ	J	AB	Head (PWB Only)

CP-C440W

SPEAKER BOX PARTS

701	92L1210093	J		Net Frame Ass'y
702	92L3160041	J		Duct Panel
703	92L0510029	J		Speaker Box Ass'y
704	92L3940029	J		Port Cushion
706	92L2910038	J		Speaker Cord
707	92L3510176	J		
708	92L3720025	J		Screw,ø4×12mm
709	92L3720026	J		Screw,ø3×10mm
710	92L3020009	J		Support,Woofer
SP1,2	VSP0050TBH26A	J	AS	Tweeter
SP3,4	VSP0016WBE46A	J	BD	Woofer

ACCESSORIES/PACKING PARTS

1	92L4110075	J		Polyethylene Bag,Speaker
2	92L4140012	J		Mirror Mat
3	92L4120078	J		Packing Add.,Speaker (Top/Bottom)
4	92L4160008	J		Pad,Speaker
5	92L3530059	J		Label,Feature

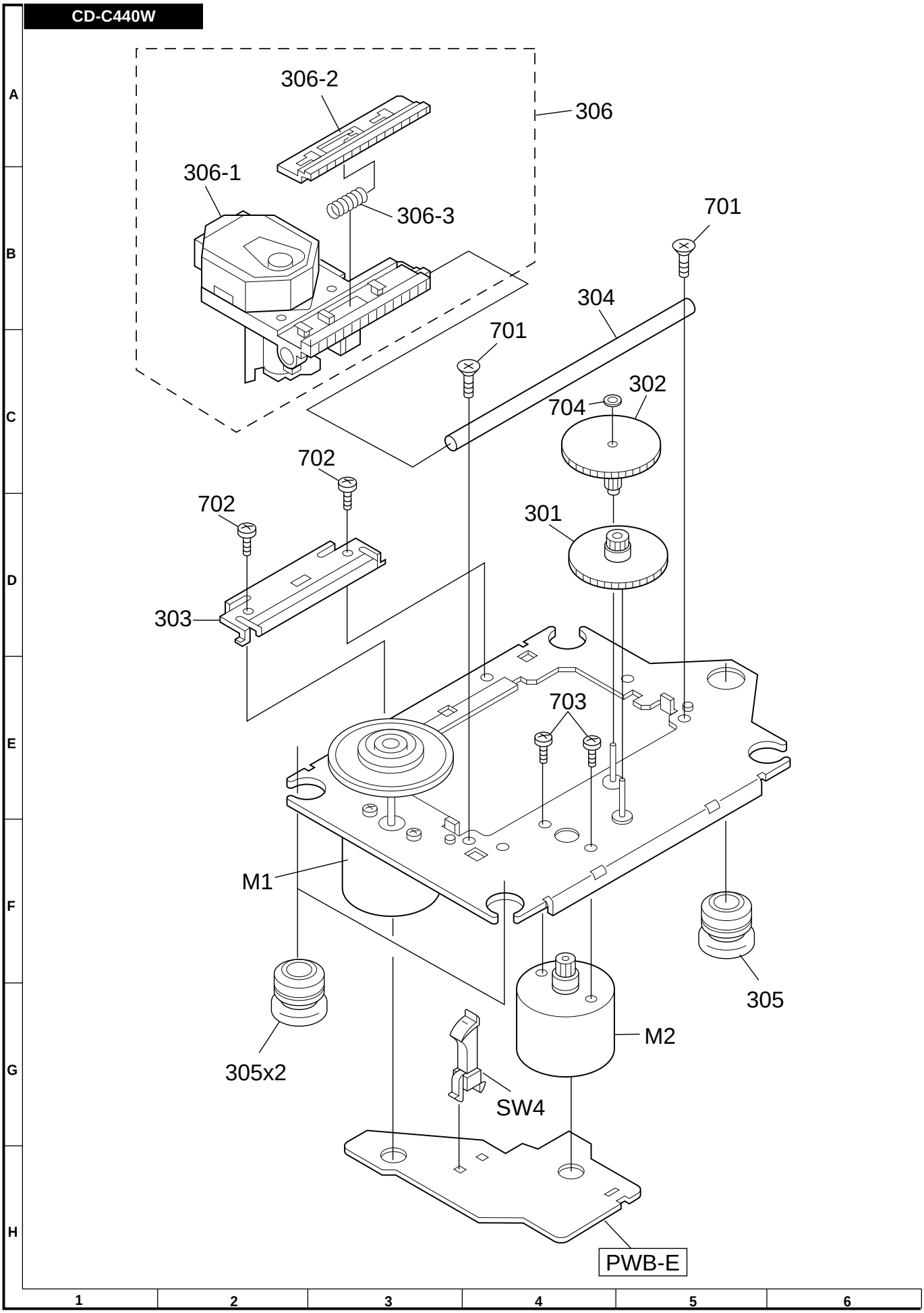


Figure 9 CD MECHANISM EXPLODED VIEW

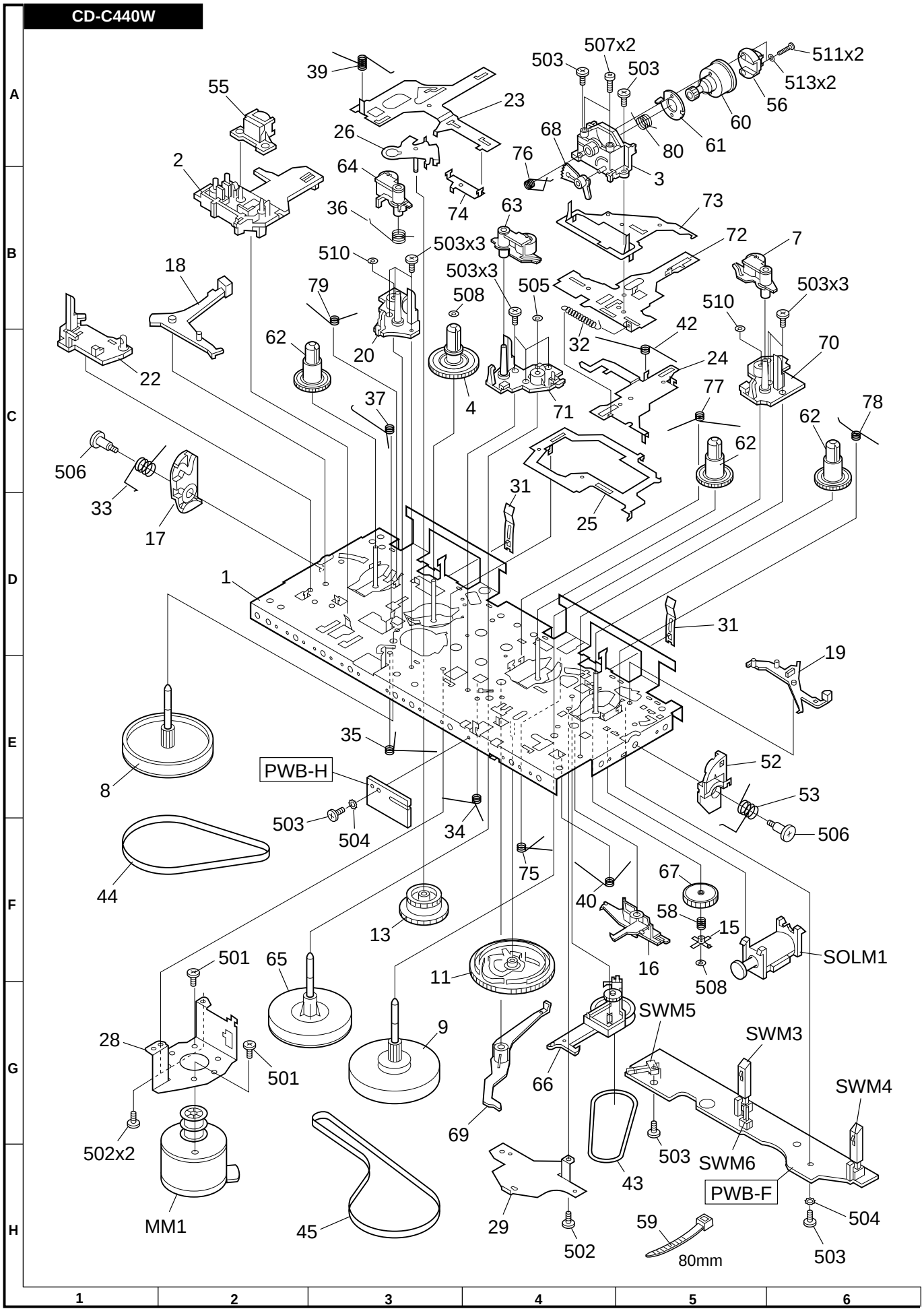


Figure 10 TAPE MECHANISM EXPLODED VIEW

CD-C440W

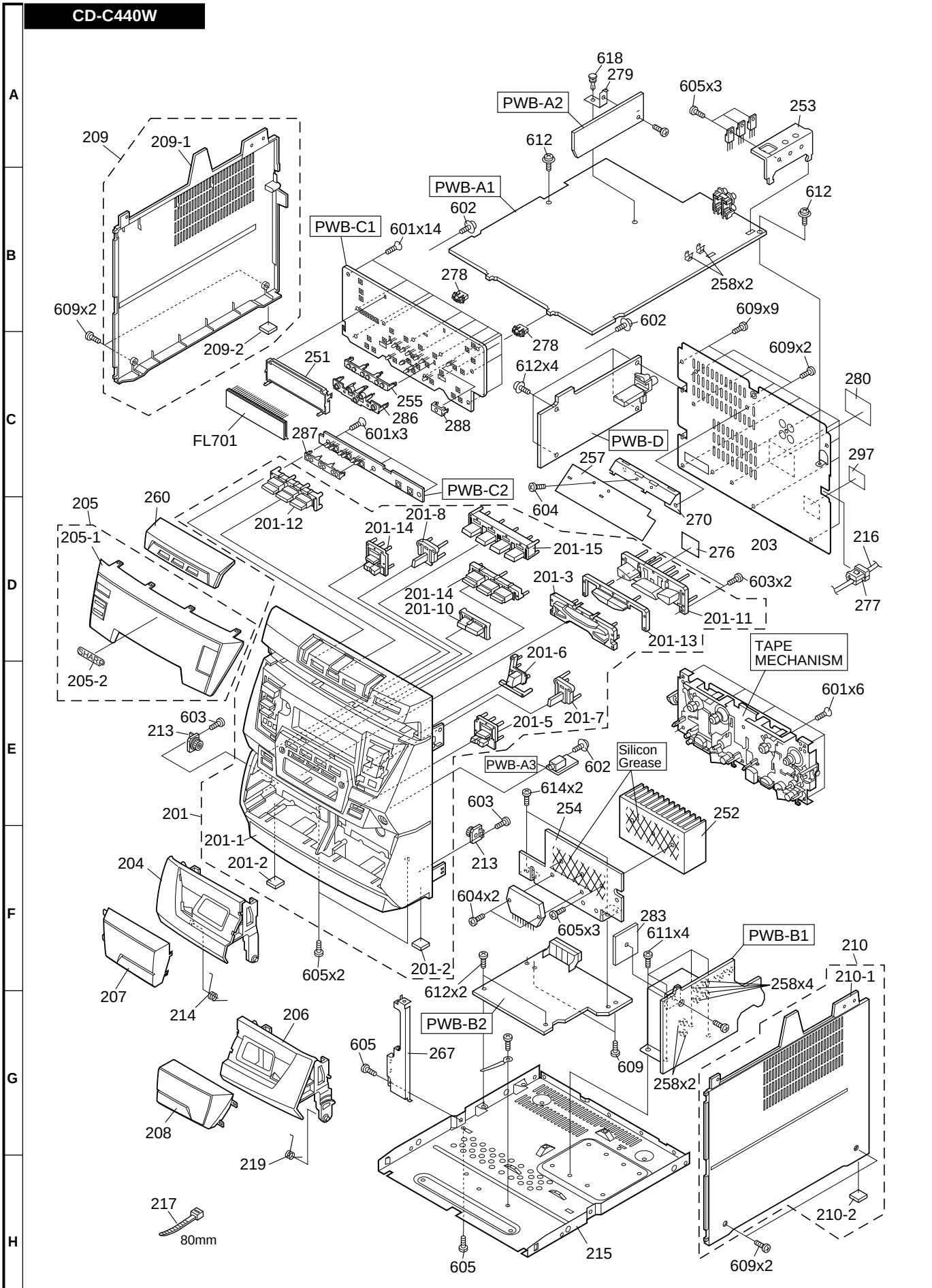


Figure 11 CABINET EXPLODED VIEW (1/2)

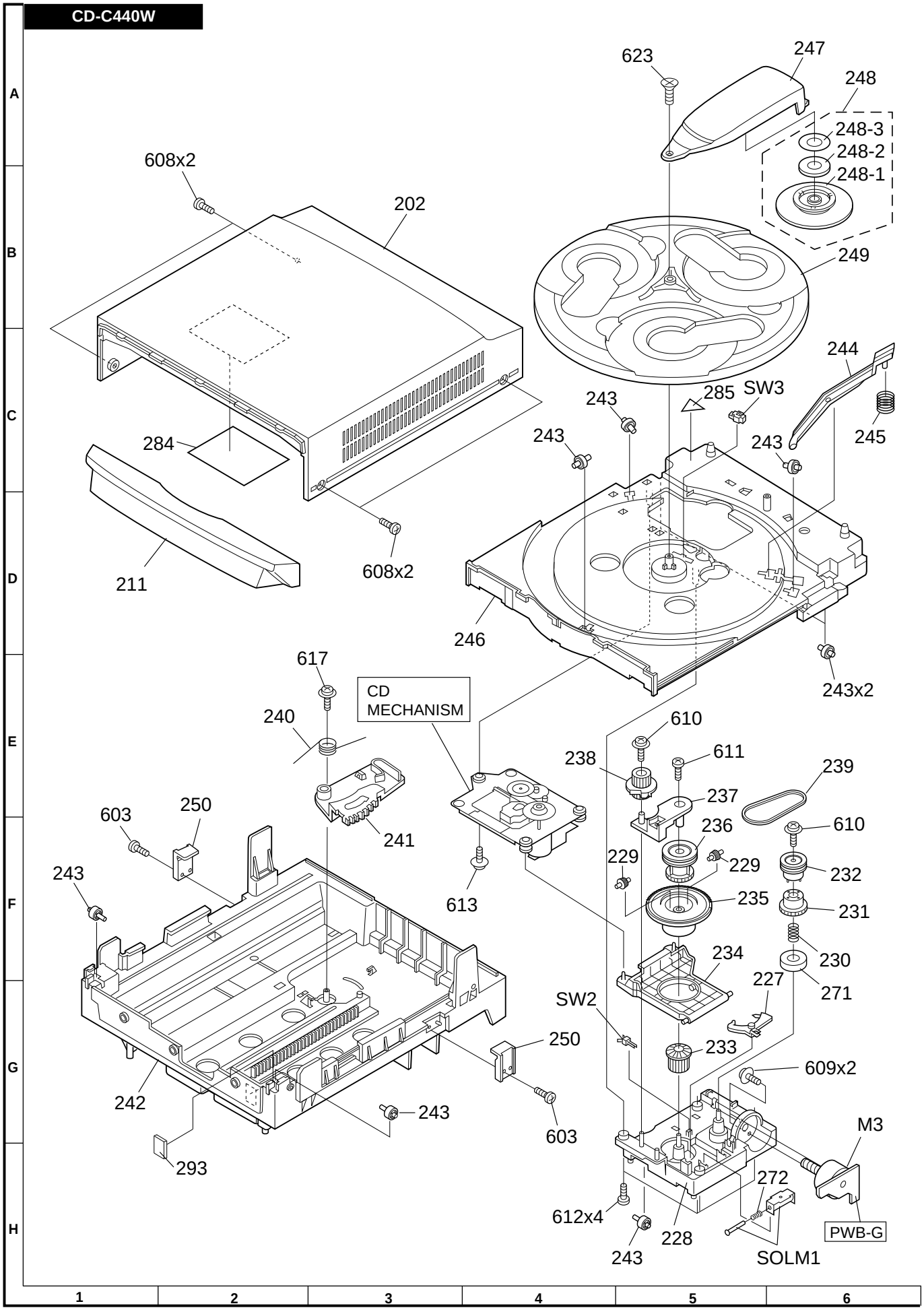


Figure 12 CABINET EXPLODED VIEW (2/2)

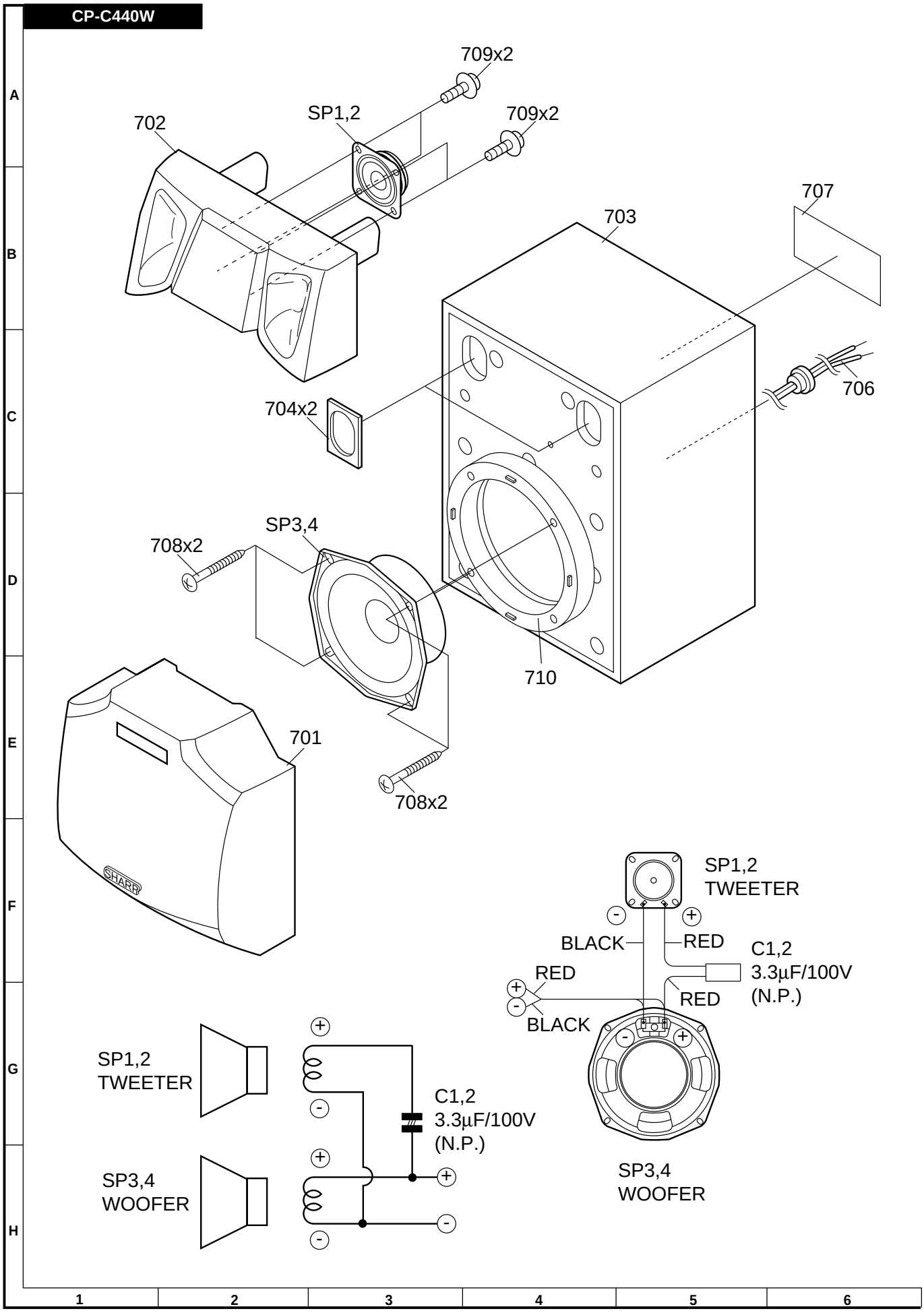


Figure 13 SPEAKER EXPLODED VIEW

— M E M O —

CD-C440W/CP-C440W

SHARP

A9707-1960NS•HA•M

Printed in Japan
SA • SZ • EX

Writer and Editor: Quality & Reliability Control Center of Audio-Visual Systems Group, Sharp Corp.